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ABSTRACT

School-to-work programs (STW) at 10 sites throughout Washington (Bethel, Camas, Central Valley, Columbia River, Goldendale, Grand Coulee Dam, Issaquah, Metlow Valley, Sumner, and Wenatchee) were examined through the following activities: reviewing background documents, interviewing key educators, observing academic and technical classes, conducting focus groups with 6-9 STW students, and worksite visits. The study was designed to identify the following: STW programs's efforts to meet state-mandated objectives; ways programs are using state funds; promising STW practices; preliminary impacts on students' academic and vocational skills and employability; ways business, industry, and labor are participating in STW; and needed changes in legislation/program policy. Most districts visited were beginning to articulate a vision of STW programming and motivate people (including academic and occupational teachers and community members) to work together to achieve that vision. The following areas were identified as needing improvement: failure to communicate the integrated and systemic nature of STW to all parties; slow pace of tying STW to tech prep and postsecondary options; and inattention to sustaining STW beyond reliance on special state funds. (Appended are the following: lists of program sites, STW coordinators, and study team, and evaluation advisory team members; interview questions; site visit instruction guide; and abstracts summarizing programs at 44 STW sites.) (MN)

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The Northwest Regional Educational Laboratory

RESEARCH REPORT

WASHINGTON STATE SCHOOL-TO-WORK EVALUATION

VOLUME II: CASE STUDY REPORT

May 1995

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WASHINGTON STATE SCHOOL-TO-WORK EVALUATION

VOLUME II: CASE STUDY REPORT

Prepared by

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Submitted by

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May 19, 1995

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ACKNOWLEDGMENTS

We are grateful to the people mentioned here for the part they played in planning and carrying out these case studies. The initial design and set of guide questions for the case studies was reviewed by the evaluation advisory team listed in Appendix E. Prior to the site visits, a feasibility study was conducted to determine what types of data would likely be available and to refine our questions for practitioners. A half-day visit was scheduled November 29 and 30 to each of three School-to-Work sites: Elma School District (a first-year funded site), Puyallup School District (a second-year funded site), and Bethel School District (a third-year funded site). Each site visit was conducted by a team of people consisting of representatives from labor (Chuck Bailey), the legislature (Randy Dorn and Mike Henderson), the Office of the Superintendent of Public Instruction (Tom Lopp), and the Northwest Regional Educational Laboratory (Larry McClure and Tom Owens). Illness forced a business representative (Tom Dooley) to cancel his participation. The School-to-Work coordinators at these three sites (Mike Hickman, Karen Hansen, and Marilyn Ash) did a stellar job in preparing for our visits on very short notice.

Likewise, the 10 School-to-Work contact persons at the sites we visited played a critical role in reviewing site abstracts, providing us with background data, scheduling key players for us to visit, arranging for student interviews and classroom observations, and providing space for the study teams to meet during the two days on site. They are Marilyn Ash (Bethel), Jill Carpenter (Columbia River School-to-Work Consortium), Shawn Regan (Wenatchee), Susan Garrett (Camas), Ian Grabenhorst (Goldendale), Fern Miller (Issaquah), Ron Munkres (Sumner), Mike Pearson (Central Valley), Kathy Proctor (Grand Coulee Dam), and Dennis Young (Methow Valley).

An experienced NWREL educator planned and managed each site visit. These team leaders (Larry McClure, Tom Owens, Roy Kruger, Francie Lindner, Bruce Miller, Changhua Wang, Kim Yap) coordinated with their team members, collected and synthesized initial findings, wrote draft chapters, had them reviewed by their teammates, and revised them based on this feedback.

Back in the NWREL office Karen Kudej prepared the necessary correspondence with the field while Catherine Paglin assisted with the report writing and editing.

Finally, we wish to thank Tom Lopp, director of School-to-Work from the Office of the Superintendent of Public Instruction for initiating and maintaining contact with NWREL on this study, encouraging us to expand the number of case studies from four to 10, and facilitating the logistics required to implement the Washington School-to-Work investment and the conduct of this study. We extend our thanks to Judith A. Billings, State Superintendent of Public Instruction and John Pearson, Deputy Superintendent of Instructional Programs, for their support and leadership.

EXECUTIVE SUMMARY

Introduction

School-to-Work model programs in Washington state must respond to student needs and provide multiple, flexible educational pathway options for secondary youth. Pathways should prepare young people to demonstrate both core competencies common for all students and competencies in a career or interest area, integrate academic and vocational education into a single curriculum, provide both classroom and workplace experience, and enable students to explore traditional and nontraditional career opportunities.

Over the last four years the Washington legislature has invested $2.65 million to enable schools to plan and implement School-to-Work-related programs (HB 1820 and HB 2359). The legislature is now interested in determining how the funds have been used and what the impacts have been. As a result, the Office of the Superintendent of Public Instruction arranged to contract with NWREL to conduct the School-to-Work evaluation.

The evaluation is intended to (1) aid in the understanding and operation of projects funded by the Washington Superintendent of Public Instruction, (2) document the impact of the projects on students, and (3) provide useful information to the legislature and policy makers regarding continued funding of School-to-Work efforts. This evaluation will provide baseline data from which to measure future progress in School-to-Work as well as provide input to guide policy makers and program administrators. The key components of the evaluation are a written survey of all School-to-Work coordinators, analysis of student data in 23 of those sites, and case study site visits to 10 communities that received funds for three consecutive years.

This is the second of three reports describing the findings of the Northwest Regional Educational Laboratory (NWREL) evaluation of School-to-Work (STW) in Washington. The first report, dated January 15, 1995, contained the description and findings from a written implementation survey completed by all School-to-Work coordinators receiving state grants in Washington. The present report provides a brief overview of School-to-Work and the plan for evaluating it in Washington, and describes the procedures and findings from School-to-Work case studies conducted in 10 communities throughout Washington. The final report will summarize findings from the two earlier studies, report student statistical data gathered from 23 high schools involved in the case studies, and share recommendations for state-level consideration.

Purposes and Procedures

While written surveys are useful in obtaining some data such as the judgments of the School-to-Work coordinators regarding the status of their programs and the number of students and community people involved in various School-to-Work activities, they do not provide a rich understanding of what is actually occurring in these communities. Thus, case studies were designed to provide an in-depth view of 10 School-to-Work sites across the state. Each site visit took two days and involved a team of two to four people led by a

NWREL staff person as the team coordinator. Other volunteer members of the study teams involved business, labor, and education leaders.

The sites visited were Bethel, Camas, Central Valley, Columbia River School-to-Work Consortium (Clark County), Goldendale, Grand Coulee, Issaquah, Methow Valley, Sumner, and Wenatchee. These sites were selected to present diversity in size, geographic location, and types of student served.

The case studies examine seven topic areas:

1. The extent to which the STW projects are meeting the required elements of the HB1820 legislation (integration of academic and vocational curricula, flexible educational pathway options for each student, increased guidance and counseling, partnerships with employers for work-based learning, and active participation of educators, labor, employers, and parents in the development and operation of the project)

2. How sites are using STW and other state funds

3. Examples of promising STW practices

4. Preliminary impact (academic, vocational, employability) on students

5. Effectiveness of STW in collaborating with Tech Prep and Student Learning Improvement Grants (HB1209)

6. Ways in which business, industry, and labor are participating in STW

7. Suggested changes in legislation or program policy

Each study team followed a common procedure:

1. Reviewed background documents (such as the proposal; budget; NWREL School-to-Work Implementation Survey; press releases; handouts to educators, parents and students; progress reports)

2. Interviewed key educators (administrators, teachers, and counselors), parents, business and labor, and community representatives

3. Observed a sample of applied academic and technical classes that are part of the school-based learning component of STW

4. Conducted a focus group with a sample of six to nine high school students who have participated in some work-based learning activities

5. Visited worksites to observe students and talk with the students and supervisors

Summary of Findings

The report provides a summary of findings for each of the 10 case study sites, followed by a synthesis chapter that highlights cross-site strengths, concerns, and some promising practices. Many of the people interviewed see School-to-Work as an opportunity to accomplish educational reform by showing students the relevance of what they are learning and by making numerous connections—between schools and the community, between academic and vocational instruction, and between K-12 and postsecondary education. They see STW as much broader than vocational education or any other program focused on certain students only. They see it as affecting *all* students.

The success of any educational reform is largely dependent on the ability of leaders to articulate an exciting vision of what their district wants and to motivate people to work together to achieve that vision over the years. This is starting to be accomplished in many of the districts that were visited.

Among the strengths the study teams observed were the ability of leaders to relate their School-to-Work goals to other school board priorities and to build on elements of School-to-Work that existed in the district prior to special funding from the state. For example, many districts already had business-education partnerships in place through vocational education advisory groups or various work-based learning activities. Other strengths included the following:

- Embedding School-to-Work goals into the overall mission and goals of the district
- Integrating School-to-Work funds with other funds such as Tech Prep resources available through local consortia, Student Learning Improvement Grants, Carl Perkins or state vocational dollars, 21st Century Schools awards, and local district revenues
- Getting many academic as well as occupational teachers to buy in to School-to-Work and view it as their own initiative, through site based councils and other vehicles
- Identifying staff development needs and providing teachers and counselors with the opportunities to attend conferences and training sessions and participate in internship experiences in local businesses to see, first hand, what knowledge and skills are needed in the workplace and how these might become part of classroom activities
- Hiring highly competent people to coordinate School-to-Work activities in their districts

While the study teams saw many examples of effective leadership, they also saw some areas where future improvements could be made. Among their concerns were the following:

- The failure in many districts to adequately communicate to staff, students, parents, and community the integrated and systemic nature of School-to-Work. Many people still view School-to-Work as a program for the non-college bound student or as only a career fair or other individual activity rather than as a framework that guides the education of all student.

- The slow pace of tying School-to-Work to Tech Prep and postsecondary options.

- Inattention to sustaining School-to-Work beyond reliance on special state funds. While some districts are using School-to-Work funds to support program personnel, the teams heard almost no discussion about how these positions would be funded in the future out of local dollars, raising questions about how permanent these positions or the whole School-to-Work effort might be.

- The lack of articulation between the high schools and the elementary and middle schools in building a comprehensive and systemic K-12 School-to-Work effort.

- The difficulty of integrating School-to-Work activities with academic content courses.

- The lack of attention to a comprehensive evaluation of School-to-Work. While some teachers may be gathering data on student performance in their individual classes, systematic sharing across classes or schools seems infrequent. Also, students seem to be absent in the planning, implementation, and evaluation process for School-to-Work programs.

Listed below are essential elements of School-to-Work with a brief description of why each is important and a summary of some strengths and concerns observed in the case study sites.

1. Integrating Vocational and Academic Learning

One essential element in the School-to-Work legislation is the integration of academic and vocational learning. Integration is important to ensure that students see the relevance of what is being learned in school, can apply the academic knowledge learned, and can integrate theory and practice in their vocational-technical training. For integration to occur, vocational and academic teachers must work together to share their expertise.

Strengths. In some districts, School-to-Work is so well integrated into the district's goals through its essential learning skills that School-to-Work has become synonymous with school reform.

Some academic and vocational teachers are working closely together not only to share ideas but to team teach an integrated curriculum that can allow students to receive both vocational and academic credit.

More and more teachers are supporting these ideas, but admit that they don't know how to implement integration and are asking for training.

Some districts are working with curriculum committees to develop a coordinated set of themes to be addressed by all teachers at a particular grade level and are working to develop such activities as senior projects that integrate skills and knowledge students have learned in school and in the community.

In some schools where building or remodeling has recently occurred, such as at Sumner, the science and applied technology classrooms are located adjacent to each other in the new wing of the high school thus breaking down the traditional separation of academic and vocational education wings.

Signs in several districts ask students "What are you learning? Why are you learning it? and How can you apply it?" This is an excellent way to help the students and staff become aware of the need to show applications of what is being taught.

Concerns. Students interviewed say that many teachers are still not showing the relationship between what they teach and other subjects or the real world applications of what is being taught.

Teachers are expressing concern that they lack time to plan together or to work together in actually teaching integrated curricula. Without common planning and instructional time, integration is not likely to occur.

Some academic teachers feel that time devoted to integrating academic and vocational learning will water down their curricula and short change college-bound students.

2. Educational Pathways

Rather than preparing students at the high school level for entry-level skills in specific occupations (the traditional role for vocational-technical education) School-to-Work is geared to giving them the broader skills and understanding needed in a cluster of occupations. This is often referred to as career or educational pathways. Washington schools divide the occupations into four to six occupational clusters. Schools then try to provide students with a core curriculum and suggested electives considered especially appropriate for their chosen pathway. Although students generally select a pathway in ninth grade, they are free to choose pathways throughout high school.

Strengths. In Clark County, all the high schools have agreed on common career pathway designations, helpful as public information campaigns are mounted or as students transfer across district lines

Students in several districts, such as Goldendale, are starting to select core and elective courses in relation to a career pathway of interest instead of selecting courses randomly or based on the ones they hear are easiest or their friends are taking. These decisions are often made at the ninth grade and are being reviewed each year thereafter.

A growing number of districts, such as Central Valley and Wenatchee, have decided to use the ACT-developed Discover program as the systemic framework for their pathways.

Concerns. Presently, many districts are creating their career pathways independently and there appears to be little collaboration across districts or with community colleges.

Educators at some sites seem unsure of how career clusters were formed or the commonalties of characteristics expected of people in each cluster. Some occupations are not easily located in a single pathway.

There is concern among some parents and educators that students are being forced to make premature career decisions at an early age and that they may be locked into a track they later wish to change. Clearer communication on these points is needed.

3. Counseling and Career Development

Counseling and guidance are important for students in School-to-Work to enable them to see from year to year the courses they need to take to fit their career and educational plans. Without quality counseling, many students wander through high school without focus and direction. Trained staff members and adequate resources are important for student support.

Strengths. Some districts are using part of their School-to-Work funds to hire and train career development specialists to operate career centers, maintain student portfolios, and provide a clearinghouse of information to students on educational and career opportunities.

Some schools are locating their counseling offices and career development centers in a neutral space in the schools to avoid suggesting that career development is only for vocational education students or those not going on to college. Educators are starting to recognize that career development is important for all students, including the college bound, many of whom will need jobs while they are in college preparing for a lifetime of work.

Many districts recognize the need for vocational counseling and career development and are providing the necessary staff development for counselors and career development specialists.

Some districts, like Bethel, are beginning to have all seventh and eighth grade students develop career portfolios which they will update through graduation. Often the portfolios

are being completed as part of a careers course or advisory group where there is adequate time for the teacher to explain the functions of the portfolio and the procedures for completing it.

There is evidence that the career development classes supported by School-to-Work grant money in areas like Clark County are having a significant impact on the participating students. For example, students express a strong sense of what career paths they would like to pursue, basing their decisions on career profiles developed in the career development class.

Concerns. Some high school counselors say they believe in the importance of career counseling but because they have a high student-counselor ratio and because of the time demands of crisis management, they lack time to meet with students to discuss their careers.

Holding only counselors responsible for career development weakens teacher involvement. Since the counselor time available to each student is limited, there is need for teachers in all subject areas to include a career focus. In addition, it must be remembered that as new teachers arrive and other teachers leave, ongoing staff development is a necessity to maintain teacher awareness and activity in this area.

Students are having some interesting experiences in the workplace, but the link between the worksite and the classroom needs to be strengthened. As well, some students are not aware of how these workplace experiences relate to their future career plans. Possibly cooperative education, which has a long and successful track record, could be used as a model for integrating worksite learning and classroom learning.

4. Student Learning and Assessment

If School-to-Work is to become a platform for school reform in Washington it is important that its goals and objectives link up with the state goals enacted in HB 1209 and with Goals 2000. A deliberate plan is needed to tie the district's Essential Learning Outcomes to School-to-Work activities. Student assessment must also be integrated so as to include understandable performance standards and authentic assessment measures.

Strengths. Some districts have their school board goals, which include the goals of School-to-Work, prominently displayed so that educators, students, and the public alike can all see what is expected.

In Methow Valley, educators collect evaluation feedback from community persons about the performance of students at their sites and students themselves evaluate their community supervisors.

At Sumner High School all teachers will be involved this spring in taking time to evaluate students' senior projects. Common rubrics are being developed for this assessment.

Concerns. Additional resources and staff time are needed to manage portfolios for all students. Also, more resources are needed for computers and software for the development of electronic portfolios.

Some teachers have halted their School-to-Work implementation in order to work on Essential Learning Outcomes, not understanding the connection between the two.

5. Partnerships with Businesses and Other Community Organizations

A critical element of School-to-Work is the work-based learning component. This component cannot take shape without significant participation from business, labor, and other community groups. These groups are important in (1) identifying the basic competencies students should have for successful employment, (2) providing workplace experiences in which students can gain or reinforce these skills as well as to explore their career interests, and (3) helping motivate students to remain in school and apply what they are learning there.

In very small, rural communities, opportunities for partnerships may appear quite limited. However, the Methow Valley as a Classroom program demonstrates that even small, rural communities have many opportunities for links with businesses and other groups and agencies.

Strengths. Some large companies in Washington, such as The Boeing Company, have been active partners in education for more than five years, contributing to the support of applied academics, developing summer student and educator internships, and encouraging the collaboration of community colleges and other businesses.

In Sumner, the chamber of commerce has helped coordinate job-shadowing experiences for more than 100 elementary, middle, and senior high students each year. In Issaquah, the chamber of commerce has cosponsored business and education forums in which employers, school staff members, and students meet to exchange ideas and arrange job shadows.

Many districts are realizing the importance of hiring a full-time staff person to help coordinate student work-based experiences with businesses. Most communities are insisting that educators' contacts with business need to be closely coordinated. In Clark County schools, collaboration has resulted in business paying some of the School-to-Work coordinator costs. This should help assure the sustainability of School-to-Work beyond reliance on state School-to-Work funding.

Concerns. While some large companies are active partners with education, small and medium-size firms seem to participate much less. If School-to-Work is going to "go to scale" and affect *all* students, a much wider base of cooperating employers is necessary.

Organized labor has been notably absent from active participation in School-to-Work at the local level. While an individual union member may be involved with a particular program or student, labor has little or no widespread organized involvement.

Many employers may be comfortable telling students about their jobs or showing them around their business, but most are not knowledgeable about how to involve students in a sequenced set of learning activities that will give students career knowledge or an understanding of the industry.

6. Active Participation of Educators

If School-to-Work is to be a successful total school reform effort and not just a new name for vocational education, it is critical that administrators, counselors, academic teachers, and other school staff members understand what is intended and learn how they can become involved. Participation of educators from the elementary school level through postsecondary education is necessary. Teachers must be willing and knowledgeable in working together and helping students see the relevance of what is being learned.

Strengths. Through site-based councils and other forms of involvement teachers are starting to take ownership of School-to-Work programs and activities. In Grand Coulee Dam School District, the high school School-to-Work program is a teacher-driven, teacher-developed, cooperative effort.

Some teachers have been vocal in identifying their training needs related to School-to-Work and have participated in such training when it is offered. Without this training many would not know how to go about integrating academic and vocational learning, working with business and community leaders, or showing students how to apply what they are learning. Educator internships, while affecting only a small percentage of teachers so far, have proven quite effective in motivating teachers to use community resources to enhance their teaching.

In some districts such as Camas, the administration has obtained teacher buy-in by stating that no major curriculum restructuring would occur without 80 percent of the teachers being in favor of the changes. As a result, 98 percent of the teachers voted to apply for the School-to-Work grant.

Concerns. Some academic teachers still view School-to-Work as a threat to their academic discipline or at least as something of concern only to vocational education teachers. Similarly, some vocational teachers see School-to-Work as requiring them to teach academic concepts and limiting student time for mastering specific occupational skills.

The findings described in detail in this report will serve as a backdrop for the recommendations to appear in the final evaluation report.

INTRODUCTION

This report is the second of three describing the findings of the NWREL evaluation of School-to-Work in Washington. The first report, an interim report dated January 15, 1995, contained the description and findings from the written implementation survey that was completed by all School-to-Work coordinators receiving state grants in Washington. The present report provides a brief overview of School-to-Work and the plan for evaluating it in Washington, and describes the procedures and findings resulting from School-to-Work case studies conducted in 10 communities throughout Washington. As well, the report contains program abstracts for all 44 state-funded School-to-Work sites in Appendix F. The final report will summarize findings from the two earlier studies, report statistical data on students gathered from 23 high schools involved in the case studies, and share recommendations for state-level consideration.

Context

School-to-Work programs must respond to student needs and provide multiple, flexible educational pathway options for secondary youth. Pathways should prepare young people to demonstrate core competencies common for all students as well as competencies in a career or interest area, integrate academic and vocational education into a single curriculum, provide both classroom and workplace experience, and enable students to explore traditional and nontraditional career opportunities.

Over the last three years the Washington legislature has invested $2.65 million to enable schools to plan and implement School-to-Work and related programs (HB 1820 and HB 2359). The legislature is now interested in determining how the funds have been used and what the impacts have been. As a result, the Office of the Superintendent of Public Instruction arranged to contract with NWREL to conduct the School-to-Work evaluation.

The evaluation is intended to (1) aid in the understanding and operation of projects funded by the Washington Superintendent of Public Instruction, (2) document the impact of the projects on students, and (3) provide useful information to the legislature and policy makers regarding continued funding of School-to-Work efforts. This evaluation will provide baseline data from which to measure future progress in School-to-Work as well as input to guide policy makers and program administrators. The key School-to-Work components of the evaluation consist of a written survey of the School-to-Work coordinators, analysis of student data, and case study site visits to 10 communities throughout the state that are engaged in School-to-Work.

To assist in managing the evaluation, a Washington School-to-Work Evaluation Advisory Team was formed. It was composed of secondary and postsecondary educators and representatives of business, industry, labor, the legislature and government. This team met to review the draft evaluation design and will be asked to review draft reports and recommendations.

Purposes and Procedures

While written surveys are useful in obtaining data such as the judgments of the School-to-Work coordinators regarding the status of certain aspects of their programs, and the number of students and community people involved in various School-to-Work activities, they do not provide a rich understanding of what is actually occurring in these communities. Thus, case studies were designed to provide an in-depth view of what was occurring in 10 School-to-Work sites across the state. Each site visit was designed for two days and involved a team of two to four people led by a NWREL staff person as the team coordinator. Other volunteer members of the teams involved business, labor, and education leaders.

Ten state-funded School-to-Work implementation sites were selected to give a balanced picture of School-to-Work across the state. These sites were: Bethel, Camas, Central Valley, the Columbia River School-to-Work Consortium (Clark County), Goldendale, Grand Coulee, Issaquah, Methow Valley, Sumner, and Wenatchee. Sites were selected to present diversity in size, geographic location, and type of student served.

Seven areas were selected for focus of the case studies:

1. The extent to which the STW projects are meeting the required elements of the HB1820 legislation (the key elements are integration of academic and vocational curriculum, flexible educational pathway options for each student, increased guidance and counseling, partnerships with employers for work-based learning, and active participation of educators, labor, employers and parents in the development and operation of the project)

2. How sites are using the STW funds provided by the state; other funding they have obtained for STW from other sources; adjustments that were made for sites that received significantly less funds than requested

3. Examples of promising STW practices

4. Preliminary impact (academic, vocational, employability) on students of STW projects

5. Effectiveness of STW in collaborating with Tech Prep and Student Learning Improvement Grants (HB1209)

6. Ways in which business, industry, and labor are participating in STW

7. Suggested changes in legislation or program policy

Each study team used the two days to conduct the following activities:

1. Review background documents (such as the proposal; budget; NWREL School-to-Work Implementation Survey; press releases; handouts to educators, parents and students; any progress reports, etc.)

2. Interview key educators (administrators, teachers and counselors), parents, business and labor, and community representatives

3. Observe a sample of applied academic and technical classes that are part of the school based learning component of STW

4. Conduct a focus group with a sample of 6-9 high school students who have participated in some work based learning activities

5. Go to a worksite to observe one or two students and talk with the students and supervisors

Pre-site Activities

NWREL's contract to conduct a statewide evaluation of STW in Washington began on November 1, 1994. The timeline for conducting the work was short. NWREL was to collect and administer a survey of all STW implementation sites by December 16, conduct site visits to 10 sites by February 27, 1995, and prepare a draft report by January 15, 1995 and a final report by June 30, 1995.

A meeting with the state STW evaluation advisory team was held on November 17, 1994, to review the draft evaluation design and identify the key questions that would guide the evaluation. A draft implementation survey was also reviewed and suggestions for improvement given by the advisory team consisting of the state STW director, business, labor, and legislative representatives, and approximately five STW coordinators in districts funded by the state. The implementation survey was revised and distributed in early December to all STW coordinators in Washington.

A half day visit was scheduled November 29 and 30 to each of three School-to-Work sites in Washington. The three sites selected for the preliminary visit were Elma High School (a first-year funded site), Bethel High School (a second-year funded site), and Puyallup High School (a third-year funded site). Each site visit was conducted by a team of people consisting of one representative each from labor (Chuck Bailey), the legislature (Randy Dorn and Mike Henderson), OSPI (Tom Lopp), and NWREL (Larry McClure and Tom Owens). A business representative (Tom Dooley) was scheduled to participate but was unable to do so. The pilot test was intended to (1) identify the type of existing evaluation and descriptive data that may be available, (2) determine the types of key people that should be interviewed during the more extended NWREL case study site visit to other sites, and (3) explore the types of questions that should be asked on the written survey to all STW coordinators and on the case study visits. The preliminary visits were very helpful in refining the types of procedures and questions to be addressed on the two-day site visits.

NWREL prepared a 12 page Site Visitation Guide to inform and guide the collaborative work of the local School-to-Work coordinators of sites the study teams were to visit. A copy of this guide appears in Appendix D. The guide identifies the purpose and focus for the case studies, describes how sites were selected, identifies the site coordinator's role and responsibilities, lays out a framework for the two-day agenda, and provides a checklist and format for scheduling key interviews, student focus groups, and classroom observations.

After completing the site visits the team leaders met for an oral debriefing. In addition to highlighting the overall strengths and concerns noted at their sites they were also asked to critique the site visitation process. Team leaders felt the visits were strengthened by including team members outside of NWREL. Concerns expressed included the desire for more information in advance about what would be expected from the visits, and the need to streamline the interview protocol. Team leaders also noted that sites were anxious for feedback regarding how well they were doing compared to others but that it was not realistic or possible to provide them with such information.

SITE REPORTS

Bethel School District

Site Report Author: Larry McCLure

Introduction

Site visit interviews in the Bethel School District were conducted by a team of three on February 1 and 2, 1995. The study team received an overview of local reform efforts and school improvement strategies from central office personnel, then spent time in two high schools, an alternative high school, the health occupations program, and employer sites. The team also sat in on a regular meeting of the General Advisory Council, which oversees the district's vocational programs and School-to-Work transition activities. A list of the local people who contributed data and insights for this case study is included at the end of this site report.

Context

Situated southeast of Tacoma, near McCord Air Force Base and Fort Lewis and adjacent to Puyallup in Pierce County, the Bethel School District is a large, sprawling suburban school system experiencing continuous growth. With those growing pains have come attendant issues of transportation, crime, housing, a transient population, and lack of an identifiable community (there are two chambers of commerce serving the school district) in addition to an ongoing struggle to secure funds for new and remodeled schools.

The district has two large comprehensive high schools and one alternative learning center serving approximately 2,635 students in grades nine through 12 in the 1994-95 school year. The school board is committed, with strong superintendent and central office leadership that has been stable and supportive. The introduction of site-based councils has not been without its difficulties, but there is a clear view of where the district would like to be in the Year 2000, from the policy level down to the classroom level, developed through a strategic planning process. The district is moving ahead deliberately on a 10-year strategic plan to restructure itself. The superintendent and key central office staff speak with one voice on seven strategies in this process:

1. Building a climate for change
2. Enabling school-based decision making
3. Providing ongoing staff development for classified and professional personnel alike
4. Establishing clear and consistent learner outcomes
5. Utilizing technology to its best advantage
6. Providing instructional support wherever it is needed
7. Assuring quality facilities and operations

Origin and Focus of School-to-Work

Leadership for School-to-Work transition is shared within the system. If there is one element that seems to stand out in Bethel's School-to-Work transition model, it is to

empower and enable staff members and community volunteers to assume ownership for the various program elements.

Bethel received a total of $109,200 in state School-to-Work grants for 1993 to 1995. In each school, staff members are working to redesign teaching and learning as active processes emphasizing higher order thinking skills, creativity, problem solving, and working productively in groups. Bethel is committed to an integrated, project-based model of learning in which the use of community resources and technology are central. This process hinges on using five career paths: arts and communication, business and marketing, engineering and scientific, health and human services, and industrial and technology. Upper secondary students interviewed said that these pathways were, in fact, introduced to them in the eighth grade and serve as organizers for increasing numbers of teaching and learning activities as the years move on.

"We do not go to college to be 'theoreticians,' so that is why every student needs to understand how career pathways address every option for postsecondary plans," said the district curriculum director.

This continuous process of quality improvement has benefited from the involvement of the private sector, which continues to play a key role. The Boeing Company recently launched its Frederickson operations in the district and many other employers have also spent countless hours working with educational personnel to design and implement programs. "We in the business community must sit down and dialogue with educators if we want students to graduate with a set of relevant skills," said one business representative. Perhaps it is this business connection that partly explains the district's unified approach to school restructuring and improvement. The district is able to accommodate every important initiative in education today by using clear, consistent goals and a carefully coordinated approach to curriculum development, implementation, and assessment.

District-level coordination for important programs such as secondary vocational education, Tech Prep, service-learning and School-to-Work transition is handled by the executive director of applied learning, who in turn works hand in hand with district administrators for curriculum, staff development, and evaluation and assessment.

A variety of forces seem to have converged at once in Bethel: the national SCANS report, Goals 2000, HB 1209, Tech Prep, School-to-Work transition, and the recent Student Learning Improvement Grants (SLIG). Even before the HB1209 school reform act, Bethel had begun to identify core essential learnings for all students and more recently has concentrated on developing curriculum frameworks, specifying benchmarks, and using performance-based assessment tools. Teachers in all subject areas in the district have been engaged in developing integrated curriculum materials, thanks in part to a new Hypercard tool which enables them to sit down at school computers and produce their own lesson plans built around core competencies.

The unique feature of this process has been staff development and support. In each building five teacher-trainers are available to assist their peers in several targeted areas such as School-to-Work (applied learning/relevancy), meeting diverse learning needs, and assessment, in addition to each building's own targeted priorities (e.g., addressing multi-intelligences, multi-age groupings).

The trainers for School-to-Work transition are key links from the central office to the buildings. An applied learning newsletter also keeps district personnel informed of School-to-Work activities.

While Bethel appears to know where it is going, all participants readily admit their model is still in the building stage with many gaps to be filled and challenges to be addressed. With the district's emphasis on site-based councils, each building is given leeway to design and develop its own unique approach to the central district model. For example, while there is consensus at the district level that a career portfolio is desirable, each high school and its feeder schools have determined the format the portfolio will take.

It has been at the elementary and middle schools where much of the integrated learning activities and community connections focus have been most readily accepted. However, more and more high school teachers are seeking out Hypercard and staff development opportunities that lead them into making major changes in curriculum and instruction in the upper secondary years.

What holds School-to-Work transition together in Bethel is a set of five core lifelong learning tools or supporting outcomes that relate directly to the SCANS report. Bethel graduates will be equipped to do the following:

- Apply career development skills
- Apply technology
- Apply communication skills
- Apply responsibility and ethics
- Apply problem solving skills

These five outcomes permeate each of the activities described below.

Program Components

Career path choices. In the Bethel schools, School-to-Work activities begin in eighth grade with the administration of career assessment inventories, first use of the career portfolio, and the initial selection of a career path. In ninth grade, additional career interest assessments and self-assessments are made and (starting in the 1994-95 school year) a career path field trip for every student is arranged. The field trip is also a prime example of how the staff tries to integrate student learning so that that core essential learnings are always visible to students and teachers. The lifelong learning tool of recognizing and using technology is addressed by giving each student a checklist and reflection sheet to guide their observation of technological applications in the workplace.

Career path choices for the class of 1999 are shown in the table below.

Career Path Choices: Class of 1999
Fall 1994/95

Career Path	No. of Students	Percent of Students
Arts & Communications	147	27%
Business & Marketing	64	12%
Health & Human Services	155	28%
Industrial Technology	87	16%
Engineering & Scientific	95	17%
Undecided	2	0%
Total Students	546	100%

As sophomores, students will be engaged in career preparation units still being developed and they will also be offered job shadow opportunities in their career pathway. Implementation of this component is scheduled for the next school year.

In grade 11, students will begin to focus on work-based learning activities in a particular field in their path and will start planning for the senior project in grade 12. Senior projects can involve paid work experience, service-learning, and other applications of learning off campus and can be accomplished individually or as a team.

The above activities at Bethel High School are coordinated by a Career Link coordinator housed at the high school career center. Each high school is equipped with a comprehensive career center which serves a valuable role in linking students, teachers, and community resources for a variety of purposes. An occupational information specialist in each center provides a varied set of support services.

Integrated instruction. Development of new courses and program offerings in each career pathway is now underway in each high school. For the health and human services path, for example, Challenger High School (the district's alternative high school) has contracted with a Pierce County Health Department nurse to teach health occupations core courses supplemented by practicums in community workplaces, arranged by the school's work-based learning coordinator. Speakers on health careers and skills are a popular part of the program. Most students in the second semester of the program are in worksites ranging from an adult day care facility to local clinics. Those who choose will be able to earn nursing assistant certification (CNA).

Spanaway Lake High School also has contracted with a registered nurse from the Pierce County Health Department and features a set of core and sub-core classes taught by a team of teachers from the business, home and family life, agriculture, biology, and social studies departments. Courses address topics ranging from advanced anatomy, nutrition, and exercise physiology to advanced medical/dental terminology, medical transcription,

and medical office assistant competencies. In spring 1995 students will have 90 hours of clinical experience.

At Bethel High School, students can enroll in a Human and Health Service Academy in a four-period block of integrated instruction that gives them credit in communication arts, careers, physical education, world history, biology, and health. In grade 11, students enroll in an integrated three-period block that includes communication arts, anatomy and physiology, and personal relations. As seniors, students take a two-period integrated block along with advanced science, psychology, and other electives as well as their cooperative work experience in a human and health service organization and their senior project.

At the conclusion of the first semester in the academy, students were enthusiastic about the various "learning communities" (work groups) that were established. With its more focused lessons, they felt the academy was more challenging than the regular high school program and was preparing them to reach their career goals. Field trips and job shadowing were also popular. Learning activities that stood out to the study team were the trial of Oedipus and learning Greek roots (in language arts), the transcription of DNA, the sensory lab, and relating science essential learnings to nutrition and exercise units (in biology), and the cooking labs and creating brochures on fats in foods to share with the community (in home and family life).

Another example of integrated instruction has been adaptation of the Materials Science and Technology curriculum (originally developed in cooperation with Battelle Pacific Northwest Laboratory) offered at SLHS. This course integrates chemistry, art, and writing with the study of metals, ceramics, polymers, woods, and composites. Teachers participated in a summer training workshop at Battelle and instruction typically involves teachers from science and vocational departments.

Work-based learning. Students engage in a variety of work-based learning activities in Bethel, ranging from traditional paid work experience (related to vocational programs, with a formal agreement with employers coupled with weekly seminars back at the school), cross-age tutoring (unpaid assistance to teachers of Chapter 1 students in elementary schools), internships (unpaid opportunities for students to practice skills at job sites related to classroom learning), job shadowing (one-hour to one-day observations of adult workers), and field trips (exposure to unfamiliar occupational areas). During the 1994-95 school year, students from Spanaway Lake High School, Bethel High School, and Challenger High School campuses participated in 227 work-based learning experiences, 183 of which were paid. A total of 164 students participated in field trips.

The study team visited several employers in the area who are providing diverse learning opportunities to students. One of the most impressive sites was Madigan Medical Center at Fort Lewis, a state-of-the-art health care center representing dozens of career opportunities in human and health services.

Approximately 15 Bethel district students are on site at Madigan at any one time. This 400-bed teaching hospital serves thousands of military personnel and veterans in the Puget Sound area, and its active local Red Cross unit is the coordinating body for high school students at the site. The evaluation team visited the orthopedics and labor/delivery/maternity units where students are able to observe and participate in a variety of activities. Adult mentors spoke with pride about the students they have worked with from Bethel schools. A visit to the CAT scanning facility was also a demonstration in applied science and mathematics. Technicians there require a solid background in physics and advanced mathematics as well as the full range of other biological and chemical sciences.

Portfolios. Each high school in Bethel is developing its own unique portfolio process. At Spanaway Lake High School, the portfolio has just been refined and produced in an impressive three-ring binder; it will become a central part of that high school's advising process. At SLHS, the entire student body is divided into groups of 16 students and one adult. Time is set aside for these Success Teams to conduct a variety of activities, including updating each student's portfolio. The portfolio contains sections to record progress and accomplishments in all competency areas as well as the student's work experiences, community service, extracurricular involvements, and attendance record, in addition to the normal kinds of career and educational planning records.

Connecting activities. As noted earlier, Bethel is served by two different chambers of commerce and each has taken an active interest in school affairs. One chamber has devoted considerable attention to school reform issues and is actively participating in five different taskforces to support Bethel's restructuring efforts, thanks to a Boeing education liaison person. The other chamber has been a key force behind a unique activity called the BELL program (Business and Education Links for Learning).This powerful process links teachers to two different business partners on a one-to-one basis each year. During one half-day in the fall, all participating teachers and business representatives gather in a large group where the initial pairings are made. The teams then develop action plans on what they want to accomplish together. During the year they carry out those joint activities and in the following spring the entire group gathers again to celebrate their accomplishments. As STW grows in the eastern Pierce County region, the chambers and schools are exploring ways to build a common database that will make the connections between students and worksites more efficient.

Program Strengths

Systemic approach. The most significant element of Bethel's School-to-Work system is the systemic approach: it is impossible to separate STW from the overall philosophy and framework of the district because it is strongly blended in both policy and practice. Staff members and students speak out of a common experience. When upper secondary students were asked, "When did you first start seeing these flyers describing career paths?" most answered "About the eighth grade," which is the time the district started using the pathways terminology. Indeed, the district has used an interesting approach to promoting the pathways. Each of the five pathway brochures is printed on a distinctive

color, which is carried along in other supporting materials that reflect that pathway. Rather than printing the materials on more expensive slick paper, the district invested in large printings on less expensive stock so that whenever the pathways are being explained (to students, parents, or community groups) the listener receives a pack of all five flyers rather than just one sample. This helps reinforce the message that Bethel gives students all kinds of choices.

Staff development. Bethel's emphasis on staff development is impressive. Having trained trainers in each building is a noteworthy approach that reinforces one-time, large-group inservice activities which are useful in presenting general content on topics such as student learning styles. A two-week optional summer institute gives teachers time for concentrated learning. However, staff members in buildings need continual support and encouragement as they try new approaches and struggle to become better teachers while coping with ongoing classroom pressures and demands. Having peer coaches in each building helps assure that needs can be met in areas such as making curricula more relevant, integrating instruction, trying new approaches to assessment, dealing with cultural diversity, and addressing the needs of students with learning deficits and disabilities.

Implementation tools. Similarly, the development of user-friendly software to help teachers write lesson plans that incorporate the new state-mandated essential learning requirements and the STW-type outcomes (e.g., SCANS skills) is also a major strength. Anything that makes these changes easier can only be an advantage as more and more teachers see the benefits of building integrated units of study.

Strong community connections. Bethel works hard to build solid workplace learning opportunities, but the district knows it has only scratched the surface of what it will need to do to accommodate all students. Having two strong chambers of commerce, the BELL program, the Red Cross as liaison at Madigan, and various school personnel trained in how to access community resources are strong positive factors.

Program Concerns

Career development in elementary and middle school. Emphasis to date in Bethel has been on the upper secondary years. The study team did not explore how the foundation for School-to-Work transition is being built during the K-7 years even though the team did hear about efforts to orient students and parents at the eighth grade level. Those formative years in grades K-7 are critically important as students begin to sort out visions of what they can do and who they will be. The fact that all teachers K-12 will be using the Hypercard software means they will be thinking about ways to make instruction more relevant to life and career applications. Resources such as the National Career Development Guidelines may be useful in this process.

Role of General Advisory Council for Vocational-Technical Education (GAC). It is unclear if the GAC is also the advisory body for School-to-Work transition. Also unclear is the extent to which a community-based advisory structure is in place to deal with the

much broader issues of STW. Some districts have moved to creating a specific advisory structure for each career pathway which can serve the needs for vocational education program oversight as well as such functions as recruiting worksites for various learning purposes.

Role of Tech Prep. Perhaps because all program elements are so integrated in Bethel, the study team feels that it is wise that Tech Prep is never singled out as some kind of unique or special opportunity. On the other hand, if programs like Running Start receive some sort of special status, then Tech Prep should receive equal if not more attention. As a member of the Pro-Tech consortium serving Pierce County, Bethel is just one player among many in this large Tech Prep consortium that includes a number of local high schools and four postsecondary institutions. While this consortium is still finding its way, Bethel should act aggressively to keep the articulation process moving. Students who can build a solid foundation in their career pathway during high school should be able to continue right on to an associate degree program without losing ground and, it is hoped, with a distinct advantage over those students who did not receive a solid foundation in science, mathematics, and communication, and in various vocational-technical fields.

Bethel School District List of Persons Interviewed

Gary Aardappel, manufacturing technology teacher
Marilyn Ash, executive director of applied learning
Dr. Don Berger, superintendent
Carol Buchholz, RN, health occupations teacher
John Caples, science teacher
Ande Chapman, vocational administrative intern
Barbara Clausen, executive director for assessment
Joyce Corlett, The Boeing Company
Joe Douglas, manufacturing technology teacher
J.B. Fitzpatrick, Hypercard developer
Jim Geise, community coordinator
Cindy Hoover, work-based learning coordinator
Grant Hosford, principal, Spanaway Lake High School
Christy Ingle, assistant principal, representing the Human and Health Services Academy
Dr. Jill Jacoby, assistant superintendent
Mark Long, drafting teacher
Don Mars, occupational information specialist
Terrace McClure, work-based learning coordinator
Terry McLaughlin, school board director
Suzanne Payne, Career Link coordinator
Terry Pullen, principal, Bethel High School
Kathy Quick-Gunther, staff development office
Laurie Richards, Good Samaritan Adult Day Care Center
Colleen Smith, language arts teacher
Terry Stone, assistant principal and student success team/portfolio representative
Mike Surmeyer, AG/MST teacher
Becky Wahl, Career Link coordinator
Deann Wood, RN, health occupations teacher

General Advisory Council (6 members present)
Two employer supervisors of students on work-based learning activities
22 students at Spanaway Lake High School

Study Team for Bethel School District

Larry McClure, NWREL
Tom Porter, technology teacher, Richland High School
Lee Wicklund, visiting superintendent, NWREL

Camas School District

Site Report Author: Roy Kruger

Introduction

A four-member study team conducted a site visit to the Camas School District School-to-Work (STW) program on February 2 and 3, 1995. Site visit activities included a briefing meeting; reviews of project documents; interviews with students, teachers, the career center guidance counselor, school and district administrators, and community worksite managers; visits to worksites providing work experience to students; a focus group meeting of students from across all four high school grade levels who are enrolled in Camas career paths courses; and observation of classroom activities. A list of individuals interviewed is included at the end of this site report.

Context

Located in East Clark County on the Columbia River, the Camas School District consists of an elementary, middle, and high school. For several years the Camas High School STW team, in collaboration with the assistant district superintendent in charge of curriculum, has developed a common vision for the STW program in the district. The high school STW team has initiated and implemented a wide variety of projects designed to facilitate STW transition. At the present time, the major thrust of the STW program is in the high school.

The community of Camas has benefited from the proliferation of high technology firms moving into the east Portland-Clark County area. Once highly dependent on the timber and paper-making industries, Camas today has a more diversified economy thanks to such companies as Underwriters Laboratories, Sharp Microelectronics, and Hewlett Packard. This diversification has had an impact on the skill levels of students entering all levels of the Camas school system.

Many of the students from families who have moved into the area are at a much higher academic level than those who have lived there longer, so that in the past several years students tend to fall into one of two groups, those who achieve As and Bs, or those who achieve Ds and Fs. The STW program was instituted to address the needs of both student constituencies. With 60 to 70 percent of all Camas High School graduates not going on to postsecondary education, the STW team has made a concerted effort to work with the community businesses to prepare graduates with the skills they need for entry into the work-a-day world.

The STW program appears to enjoy wide support across the Camas business community. However, those in the business community do not appear to have a consistent perception of what STW is and what type of workplace skills high school students need for entry-level jobs. When asked, many of the business interviewees defined the STW program as a vocational education program rather than a complete restructuring of the curriculum.

The problem-solving skills needed by companies such as James River and Tidland appear to be at a more sophisticated level than those for the high technology companies. This may be the result of restructuring at the older resource-dependent companies, which has pushed management decision-making down the organization to the lowest-empowered worker-team levels. Although high technology companies want workers who can read plans and make some decisions, the sophistication needed for empowered "learning organization" problem solving is the responsibility of individuals higher up the organizational hierarchy.

Local employers made a concerted effort to get involved five to eight years ago when high school students couldn't pass their basic entry skill tests to get a job. It was apparent to most of the community that the quality of graduates was going down. The business community joined with educators to form joint advisory committees. These committees have had input into the system, although they are sometimes critical of programs such as STW. Businesses want to help, but often they are not sure what to do or want to do things that are inappropriate, such as write curriculum. Sometimes chief executive officers want to make presentations even though they may have very poor presentation skills and have no appreciation for the "active learner" needs of students.

Teachers, as a whole, have been very supportive of the STW program. In part this may be the result of a promise made by the school district that Camas High School would not attempt any major curriculum restructuring without 80 percent of the teachers being in favor of the changes. Ninety-eight percent of the teachers originally voted in favor of applying for the STW grants.

Most teachers are supportive of the guidance and counseling through the program. Before the STW program, teachers and counselors appeared to be at cross purposes and not on the same student advocacy team. While teachers were focusing on alternatives to postsecondary education, counselors were "directing" all students toward college. With the grant, Camas was able to institute a career center and hire a paraprofessional to assist students in exploring a variety of postgraduation options.

The career center also assists students in exploring pregraduation opportunities such as internships, senior project worksites, and the Running Start program at Clark College. The career counselor and teachers now work as a team to open up all options to students. Teachers now use the career center as an integral part of their classes. Students are assigned occupational topics to research, and teachers access the center for "real world" examples they can use in instruction.

Teachers are becoming advisors for their students. At Camas High School, each teacher has a group of 20 students that he or she advises all through their years at the school. These advisor/advisee groups meet for 10 minutes every morning.

Students appear to be very supportive of the STW program. Since the 21st Century Schools program began at Camas, students have had to adjust to a lot of change and STW

is just one more change. Although these changes have produced stress among students, they have also forced them to be more serious and aware of their education. The students' biggest concern has been the graduation standards that are being implemented as a part of overall curriculum restructuring. With the advent of the career paths and senior project, it is no longer possible for students merely to coast; they are responsible for their academic performance. Teachers and parents perceive a major benefit of the STW program is that students in the past three years have taken greater responsibility for their own education.

Parents are a little more reserved in their support of the STW program. Most parents who have taken the time to contact the high school want their children to go on to some kind of two- or four-year postsecondary institution. Many are against the idea of vocational education, which is how they perceive School-to-Work programs. Parents tend to be concerned that their children will be locked into a particular career path. Parents are also concerned because it is now possible for students not to pass. While it used to be possible to get through school with a D- average, this is no longer possible under the STW restructuring. Finally, a vocal minority in the community opposes the STW program because of its emphasis on outcomes.

Origin and Focus of School-to-Work

The STW program was built upon the foundation Camas established as a part of its 21st Century Schools grant. It was with this grant that Camas began the process of integrating its curriculum, exploring needed job skills, looking at cooperative efforts with the business community, and thinking of the students as workers and the teacher as coach. The grant allowed vocational and academic teachers to work together.

The initiative for the program came from the vocational education director, who is also a family health and life teacher. She assumed the responsibilities for the program and became the unofficial part-time STW coordinator. She believes that a problem for most academic teachers is that they think of STW as a vocational program. The coordinator has enjoyed the challenge presented in developing a coordinated curriculum.

The major structure for the STW is a Vocational Advisory Board comprised of business and community members. The advisory board meets once a month to give the coordinator input and direction. The vision of this board is that at some time in the future the whole school will be a functioning STW institution, providing all students with an intensive and comprehensive integrated academic and work-related program. Such a program would ensure a full integration of the worksite learning and school-based learning.

The STW program revolves around the Career Paths program and career center. The newsletters, bulletins, course descriptions, and advising materials consistently focus on career paths. The STW team has developed a special Career Paths logo that is placed on posters in every classroom, providing a constant reminder of the program.

All staff members participate in district-sponsored inservice workshops. Some of the activities have been opened up for members of the community and businesses. Joint workshops have also been developed for high school and middle school staffs.

The community/business advisory councils have been very active in helping to guide and mold the program. They originally helped to develop the Career Paths program. The Business Education Partnership, a subcommittee of the chamber of commerce, has been instrumental in getting students worksite placements.

The total integration of academic and worksite education is a major component of the complete restructuring of the district's curriculum. The objectives of the Camas STW effort are to provide equal opportunities for all students and ensure that the district gives all students equal services. However, the full integration of the school-based experience with the worksite experience of students has not taken place yet. The business community has been very helpful in assisting students to obtain basic workplace skills. However, these experiences do not appear to be of the caliber of the training provided by Tech Prep programs.

During this past year, the citizens of Camas passed a building fund levy. Money that was earmarked in the STW grant application for wiring the school for electronic video, computer networks, and television is now available for other uses because building levy funds will be used for this purpose. The STW coordinator would like to use the funds to purchase, or maybe even develop, an electronic career path database program for access to student files and portfolios. The major focus of such a program would be to assist teachers in being better advisors and to give students an electronic copy of their file and portfolio to be used at their discretion. For instance, they could show prospective employers copies of their work.

So far the Camas School-to-Work program has been fully funded, receiving a total of $63,000 in state grants for 1993 to 1995. The coordinator is concerned about what will happen after grant funds are no longer available. She does not know if the district will be willing to pick up the funding for the career center and career counselor.

Program Components

The standard core of the basic program design is the Career Paths program. All students are expected to select from among the six specialized career paths:

- Environmental and natural resources
- Engineering and industrial technology
- Arts and communication
- Health, home and recreation
- Business and marketing
- Social, human, and governmental services

Once a career path has been selected, students and teacher advisors are expected to develop a student schedule from the career path core classes. The basic core is a rather restrictive schedule with few electives. However, some students may qualify to substitute Tech Prep, Community Resource Training, and Running Start classes.

Guidance and sequence assessments tests (Washington Occupational Information System and COIN) are given each year. STW money was used to buy Washington Occupational Information System (WOIS) career interest inventories for the middle school.

Job shadowing, adopt-a-student, and student mentoring happens during the sophomore and junior years. During the senior year, a project is done at a specific worksite. Through the career center, seniors research a particular occupation. They put together a major research report and make a presentation. Efforts are made to assist the students in developing a project that relates directly to the area of interest they have chosen for their senior project. This might include being placed in or exposed to a worksite, or building a structure that relates to their senior project. Projects have included writing letters to Japanese businesses and learning Renaissance painting techniques.

A horticulture program has been established for special education students. Students grow plants and market them to the community

Under the Community Resource Training (CRT) program for juniors and seniors, students work at a business site learning actual job skills. One of the limitations of this program is that students are primarily relegated to clerical tasks at the worksites. Legal as well as liability restrictions make it difficult for students to obtain experience in using equipment and substances such as chemicals.

Camas has one apprenticeship program with the drywall industry. The study team found that the organized labor movement has not played a major role in the development of the Camas STW program. Although individual supervisors at a worksite might belong to a union, the organizations do not take an active role in the program implementation process.

Program Strengths

- Most of those involved feel that the program has had a very beneficial effect on the academic and career skills of students. Teachers, counselors, and community members now collaborate closely in developing academic and career path programs for students.

- The 21st Century Schools program helped to give teachers a higher profile in the community and helped them to begin developing benchmarks, tasks, and outcomes for their students. This process has been carried on and enhanced under the STW program.

- A major strength of the program is that students are focused on something useful. They set their own goals. They are aware of all kinds of postsecondary opportunities.

- The STW program has facilitated close collaboration and cooperation between the academic and vocational staffs. The decision made at the administrative level that no decisions would be made without an 80 percent teacher approval has strengthened the level of teacher buy-in for the program.

- The STW program has facilitated meaningful personalized counseling for all students. Teachers and counselors no longer appear to be at cross purposes with each other. Students are presented with a greater variety of postgraduation options.

- The school has gotten away from tracking students. Students are more in control of their own learning and involved in evaluating occupational options.

- For many students the Job Acquisition Skill (JAS) program has been very beneficial. Business leaders work with students to develop their interviewing skills, telephone conversation skills, and other socially related skills that are needed for the workplace.

Program Concerns

- Some students are confused about what kinds of training they really need. They don't know what kind of jobs they should be preparing for and what types of jobs will exist in the future. When students are freshmen their senior year looks far off and they have no sense that they need to plan.

- Finding funding for the program after STW grant funds are no longer available is a concern. Future focus will be on finding funds for the career center and career counselor.

- One of the concerns has been trying to understand what the business community wants out of the STW program. Some companies want students to have higher-level thinking skills while others want them to be prepared for more repetitive, less demanding problem-solving types of jobs.

- There seems to be no consistent definition of STW. For most individuals—business people, community members, and even academic teachers—STW means "vocational" education.

- One of the major weaknesses of the program has been the failure to integrate Career Paths completely into the overall curriculum. One reason for this deficiency is that the school has spent so much time developing outcome standards.

- The worksite placements have been dependent on the chamber of commerce and other members of the business community, rather than STW program personnel. One of the business representatives said the business community is very supportive of the program; however, someone needs to manage the worksite program. Most businesses do not have the time to do this and at the present time this isn't being done by the school. Possibly a full-time coordinator could manage the worksite program or possibly some form of intermediary infrastructure using a business-education compact model could be developed.

- Labor unions have not been a major player in the STW program. Individual workers have assisted students, but the official union structure has not been involved.

Camas School District List of Persons Interviewed

Don Aaberg, mathematics teacher, Career Pathway Integration/mathematics
Cley Alfiler, career counselor, Career and Guidance Center, Camas High School
Estrella Bruni, English teacher, senior project coordinator
Jim Carroll, realtor, Camas School Board
Donna Cooper, vocational teacher, Advisor/Advisee Program
Brian Crews, Human Resources, James River Corp.
Susan Garrett, vocational education director, Integrated Curriculum/Journeys
Harvey Keen, principal
Rosemary Knapp, librarian, Media Center/Pathways Resources
Tanis Knight, assistant superintendent, Camas District Administration
Bill Konz, Personnel Management, Tidlands Corp.
Rob Pabst, science teacher, Career Pathway Integration/science
Jama Reed, counselor, Middle School Connection
Con Tornow, vocational education teacher, Career Pathways Developer
Ken Whiting, business vocational teacher, Business Education Partnership
Kelly Williams, business vocational teacher, JAS (Job Acquisition Skills) technology integration

Focus group of nine Camas High School students.

Study Team for Camas School District

Roy Kruger, NWREL
Rick Kinsley, vocational director, Riverview School District
Sandi Madison, career specialist, Mt. Baker School District
Bruce Zeller, State Employees 443

Central Valley School District

Site Report Author: Larry McClure

Introduction

The onsite review of Central Valley School District's Student Career Opportunity Paths in Education (SCOPE) program was conducted February 6 and 7, 1995 by a diverse four-person team. Most attention was focused on Central Valley High School (CVHS) where the SCOPE program is still being developed as a prototype model. University High School, also a three-year comprehensive high school, is now preparing to implement the strategies that have been pioneered at Central Valley High School. A list of individuals interviewed is included at the end of this site report.

Context

Central Valley Public Schools is a large suburban district lying 15 minutes east of Spokane along the I-90 freeway linking Washington to the Idaho resort country. The population of this growing area is fairly homogeneous. Most residents live within easy driving distance of Spokane workplaces and a growing industrial area in tax-advantageous Idaho where a new furniture manufacturer has become one of the region's larger companies. However, the largest employer in Spokane—Kaiser Aluminum—lies within sight of Central Valley High School where the initial investment of School-to-Work transition dollars was made. The valley enjoyed a relaxed life style until the last few years.

Origin and Focus of School-to-Work

The Student Career Opportunity Paths in Education (SCOPE) program at Central Valley High School (CVHS) emerged out of a sense among faculty members and administrators that graduates of the school were not being equipped for the 21st century. Several factors converged at about this same time: a new principal took over at CVHS, strong vocational programs were being taxed, and there was concern that changes in those programs were long overdue since graduates having only good technical skills would not be competitive without equally strong academic and lifelong learning skills. When a large electronics firm started asking questions about the availability of a qualified local workforce, the local economic development council also let it be known that business as usual in education was no longer possible.

After hearing about an innovation being tried at Woodland High School near Sacramento, California, a vanload of key administrators and faculty members drove to see the school for themselves. They left impressed with the general features, though also convinced they could improve the model and shape it to fit the Veradale area. There were only two dissenters when the faculty later voted to launch the SCOPE program, the broad outlines of which were presented at the end of school year 1990-91. The district received a total of $139,200 in state School-to-Work grants for 1993 to 1995. New principal for 1994-95, Paul Sturm, a 15-year veteran on the CVHS staff, has fostered SCOPE's momentum after the former principal moved to a new position in nearby Spokane. Paul Sturm participated fully in the team's two-day site visit.

Program Components

The following SCOPE outcomes have been established by CVHS staff:

- Increased student interest in postsecondary educational and employment opportunities based on a strong understanding of the concept of lifelong learning
- A greater number of students applying for and attending postsecondary educational institutions including apprenticeship, the military, colleges, and trade schools
- Improved attendance rates
- Improved standardized test scores
- Improved counseling avenues available to all students based on personal and career development needs
- Increased involvement from parents and community representatives in the school curriculum and counseling process
-

SCOPE is built on four cornerstones:

1. A curriculum focused on enriching academic instruction addresses all student learning styles, particularly by integrating academic and vocational instruction.
2. Guidance and counseling is emphasized. Student interests are assessed regularly and each year each student is helped to revise a five-year plan. Social service agencies assist students with personal and social problems so that school staff members are not tied up with these specialized needs and counselors are freed up to address the needs of all students.
3. Curriculum and guidance activities are built around six distinct career paths based on a commercially-available toolkit.
4. Use of community resources for learning is facilitated by a coordinator hired from the private sector.

As they try to assure each of these conditions is met, the staff works to provide a safe and secure school environment that keeps attention focused on the individual student. Each cornerstone is discussed in more detail below.

Focused curriculum. CVHS faculty members are learning to understand that academic and vocational education are not alternative instructional strategies but very complementary. Thanks in part to the former vocational education director who has now

become the district's director of secondary education, the CVHS staff has been encouraged to try new approaches to instruction and new ways of working together without stretching state rules and regulations to the breaking point.

An example of how students enjoy interdisciplinary learning opportunities was described by students and an art teacher who, with the drafting and design technology teacher, are designing and constructing a gazebo on campus. They proudly displayed the mockup of their project built to scale as architects typically do. Over a period of several months, the student team has spent countless hours consulting experts and researching various elements that must be considered. Each of the team members, including one who is a special education student, has made equally valuable contributions ranging from working on placement (line of sight from the office area for security reasons; access to bus lanes and parking), computer-assisted design, and layout of the plot plans (drawing gradations of the slope), to analyzing prevailing weather patterns (wind and sun impact), and making decisions on easy maintenance plants that would be appropriate for the site (involving a local landscape architect and school custodians).

During the week of the site visit, team members were working with a mathematics teacher, double-checking computations on the yards of concrete that would be required to construct the slab and determining the exact shape of the pillars. Future classes will tackle the pillars and roof. The project has already won plaudits from local architects for its creative juxtaposition to the rather linear and boxy school buildings it will embellish.

It was obvious from their discussion that the students were in charge of this project, with the teachers only providing behind-the-scenes advice and technical support. One young woman, who aspires to be a landscape architect, said she stayed up until 2 o' clock one morning researching a bothersome element of the project "because I felt like I was making an impact and there was stacks of reading I had to do. At first I was reluctant—no one would ask me and I wouldn't ask either—but now I feel important and I'm not afraid to speak up."

The art teacher, who has always tried to use field trips as part of her curriculum, says the SCOPE emphasis on integrated learning has made her a better teacher after 26 years of experience in the field. "My responsibility is to make my courses interesting and these kinds of projects accomplish that purpose," she said.

The gazebo project is just one example of many that have enabled students to make connections between various subject areas in the school and real-life community needs and career possibilities.

Another example of how vocational and academic instruction can be melded into a relevant new way of learning is the Sports Medicine and Orthotics program at CVHS. The combination of science (e.g., biology, physiology, anatomy) and athletic training (e.g., prevention, rehabilitation, taping of joints and injuries) has opened up a number of career fields for students who are able to combine classroom instruction with on-the-job training

right on campus. Several students from this program have already moved on to college programs where they are working as assistant trainers.

Making instruction relevant does not mean watering down the curriculum or making learning less rigorous at CVHS. When the applied mathematics courses at the school started to become a remedial program for students having trouble handling math, the option was dropped. In its stead, mathematics teachers were urged to rethink their curriculum. During the study team's visit, the opening of the school day was delayed until 11:30 a.m. to allow faculty members from both high schools to meet together by subject areas to prepare competency-based descriptions of course content and illustrations of how students will be expected to apply this knowledge. In addition to these periodic staff planning times, teachers also have the option of having a substitute teacher teach their classes if they spend that day in a local worksite to find real-life examples of how their subject matter is used.

Thanks to the Discover program (described below under the heading "Career paths"), each faculty member receives a printout showing which career pathway every student in his or her classes has selected. While some teachers the team met admitted this is a potentially useful tool, they seldom have time to think of what it means for each individual because of large class loads. However, several said these lists serve as reminders that at any one time in the classroom there are six different perspectives for each lesson; their challenge is to think of how to approach each assignment with those applications in mind (which, interestingly enough, is the way the Applied Mathematics, Applied Communication, and Applications in Chemistry/Biology curricula have been designed by the Center for Occupational Research and Development in Texas).

Guidance and counseling. The major objective of SCOPE is to make school both practical and relevant to each learner based on learning style and career interests.

Next school year, CVHS is making plans to implement an advisory process which links small groups of students with a staff member who will meet with this advisory group over a period of months or years. This new step in the guidance and counseling aspect of SCOPE will significantly alleviate the persistent issue of how to provide each student with one-on-one advice. Until then, the high school relies on its staff of four certified counselors, a career center specialist, faculty members who naturally counsel with students anyway, and a growing number of community mentors.

The process begins in eighth grade at the feeder junior highs when students are first assessed on career interests and are introduced to the career pathways notion. At this point, they have their first exposure to the notion of a five-year plan, another anchor point for SCOPE. The faculty believes that students in the eighth grade should not only realize what it takes to graduate from CVHS, but also what they will need in that fifth year after they graduate. Each year thereafter, counselors involve students and parents in rewriting that plan (using an entirely different form each that makes multiple copies) so that students continually project ahead to what they will need to accomplish at the next level.

The CVHS alliance with community health and social service organizations is a proactive way to relieve counselors of some of the most time-consuming areas of their work—dealing with students facing unusual problems in their personal lives. The high school provides office space and serves in a liaison role for the estimated 15 percent of the students who require specialized assistance in areas such as suicide prevention, substance abuse, relationships, rape, children of alcoholics, homelessness, depression, eating disorders, domestic violence, nutrition. Counselors often spend a majority of their time dealing with problems in these categories. A report on referrals made in 1993-94 illustrates the use of these resources:

- Community Mental Health (76 students, 442 contact hours on campus and four group sessions)
- Youth Help Association (45 students, 302 hours)
- Spokane County Juvenile Court Services (average 2 to 4 students on probation at any one time, 216 hours)
- DayBreak Chemical Dependency Treatment Center (28 students, 100 hours)

Career paths. Central Valley built its six career paths around the following domains:

- Business marketing and management
- Business communications and operations
- Technology in society
- Engineering, science, and medical services
- Creative and applied arts
- Social, health, and personal services

This particular arrangement of career paths is based on the American College Testing (ACT) Discover program, an assessment system that links career interests and occupational attributes (e.g., working with people, data, and things). Using input from annual surveys, students and teachers alike learn to recognize the factors that characterize each pathway. The familiar "career wheel" poster developed by Discover is part of all student registration materials and SCOPE handouts. The same World of Work poster is prominently displayed in all classrooms as well, and in at least one case is painted directly on the wall as an attractive graphic.

The six pathways are used throughout the school year as an organizer for teaching and learning activities. Teachers are loosely assigned to each pathway, with each group chaired by a team leader who is given release time for coordination activities and for information sharing with the junior high schools.

All students participate in at least one large-group gathering annually, organized by career pathway. These meetings are held in a large room at CVHS. Called the SCOPE center, this multipurpose space houses tiered seating, the office of the community resource coordinator, a space for career interest materials, a large suspended screen, and appropriate projection equipment for overheads, slides, video, film, and eventually Internet multimedia access. During one January week there were presentations for students in three different career pathways featuring local job holders in those fields. The SCOPE center was converted to this use after being a storage facility for desks, chairs, and cast-off equipment. A former automotive shop, it has a large overhead door that makes it possible for a local emergency medical technician unit to drive in for a hands-on demonstration. An 18-wheel truck-trailer unit can also fit in the facility. Part of the costs of the SCOPE center have been underwritten by charging a nominal fee to visitors to the SCOPE program at CVHS.

Community resources. SCOPE's fourth essential ingredient is its comprehensive use of community resources. CVHS invites the active participation of local employers in a variety of ways ranging from validating curriculum on advisory committees to hosting students with on-the-job training agreements as interns at their worksites. Many teachers at CVHS have grown accustomed to having guest experts from the Spokane/Veradale area as presenters in their classrooms. On the day of the team visit, a chemistry teacher had invited a local pharmacist to discuss applications of chemistry in that occupational area as well as career possibilities in the field.

CVHS is lucky to have a full-time community resource coordinator on staff, thanks to the additional state funds for STW. Formerly an executive with a locally owned conglomerate called The Broadway Group, this enthusiastic private sector representative began his relationship with CVHS as a classroom presenter and occasional volunteer. When the school decided a full-time "connector" would facilitate the use of community resources more efficiently than teachers trying to make their own arrangements, he was the natural choice. Because of his wide number of connections in the Spokane and around the state, he has developed a broad and varied network of resource people who have agreed to be part of SCOPE—some even as far away as Seattle. Teachers and students alike have come to rely on the community resource office as their first stop to making learning more relevant.

Using community resources at CVHS is commonplace these days. When students in the design technology class were looking for a project two years ago, they were linked to the local Goodwill Industries, which happened to be searching for a new design for attended collection centers. With the guidance of a local architecture firm to advise on how to work with a client to determine customer needs, students began developing a number of alternative designs and specifications which were then presented to the Goodwill board and executives for review and approval.

For all parties, this was a winning situation. The non-profit Goodwill was delighted with the outcomes of this project and now has a model for other Goodwills to use in their

communities; the students had a real-life project rather than a simulation or textbook story problem; the architectural firm had the satisfaction of showing students the field and assisting a community organization without having to take total responsibility; the teacher had the satisfaction of seeing students grasp a real project they will be able to point to in a mall parking lot as "theirs;" and parents will have the satisfaction of knowing their child is "cut out" for architecture before making the investment in a very expensive college education.

Another design project was for Olivetti, which designs and builds checkout stands and equipment for retail stores. Students, with the help of a mentor from Olivetti, designed a new checkout stand that would be particularly appropriate for cashiers with disabilities.

The business and marketing program at CVHS is working to find a mentor for each advanced student. These community partners will provide guidance and assistance to students for special projects as well as ongoing class assignments on topics such as the impact of NAFTA on local business, and the effects of health care reform on small business.

Another interesting connection with local employers is the See the Light program developed by Tidyman's Corporation, a locally owned grocery chain with locations from west of Spokane to northeast Montana. Concerned that its consumers need to understand the fat content of foods they eat, the store has analyzed the fat content of every item it sells and assigned a "red, green, or yellow light" symbol to each one. This campaign also involves students in the Spokane area in learning good nutrition habits. Tidyman's hired CVHS marketing class students to spend two-hour shifts at their major Spokane area stores interpreting the See the Light symbols to customers and also serving as resource persons to elementary and secondary classes in the district. Students gained a variety of communication skills and customer satisfaction skills in the process, in addition to applied knowledge in science and health.

Program Strengths

Systemic approach. Those involved in SCOPE agree it is a permanent feature and not a passing fad in education. Said a counselor, "We took on everything and it was an enormous task since we're changing an entire school." An indication that this model is going to be around a long time is that it continues to move forward after key leaders move on. While all leaders agree they may never "arrive," the journey has been both arduous and exhilarating. Staff members who are really committed seem willing to give the extra time required, while they recognize there will always be about 15 percent of the staff who will never want to change. When SCOPE moves to University High School next year, all agree the model will need to change to reflect that school's unique qualities. Much of the momentum at CVHS seems attributable to administrators' willingness to facilitate the change process (e.g., the vocational director finding resources and opening the right doors) and let others take the credit.

Strong community ties. In a time when there is much community concern about "outcomes" and "values" as some kind of plot by educators, Central Valley has focused on the competencies students need to become productive citizens. And the most effective message bearers are parents, employers, and the students themselves, who are very articulate about SCOPE and what it is trying to achieve.

Use of existing community resources. Rather than reinvent the wheel, CVHS aggressively involved existing agencies and networks to provide specialized help to students in need. The Exploring program, sponsored by the Boy Scouts of America. already offers a mechanism for linking student with career interests (young men and women alike) to local employers and community organizations. SCOPE invited the local Exploring executive to have full access to CVHS students. As a result, students are learning about police work, fire fighting, and veterinary work by spending afternoons and weekends along side adults in those fields. Some have even traveled to Hawaii to study marine biology, thanks to the Exploring connection. The SCOPE philosophy is that if someone has resources to offer, SCOPE should use them.

Attention to individual student needs and plans. Even though there are approximately 1,200 students in this three-year high school, CVHS tries to accommodate each student's needs. One example of this flexibility is the Learning Opportunity Center, which is open two evenings a week in addition to regular day access for students who need additional time and help on coursework. The school has eliminated so-called "general work experience" that has no bearing on academic and vocational skills. It will not give credit for jobs students obtain that are not linked to the student's five-year plan.

Joint marketing. The day of the team's site visit saw the launch of a regional marketing strategy for professional-technical education, sponsored by the Spokane Teachers Credit Union. Using the career pathways theme first launched in the area by the SCOPE program three years ago, the public relations campaign is designed to win community and parent support for the STW concept and to enhance the image of the many impressive vocational education programs available in the five participating school districts and the Spokane community colleges.

Program Concerns

Community awareness. Despite the hard work so far, there are still students, and undoubtedly parents and community members, who are only vaguely aware of SCOPE purposes and possibilities. The awareness process needs to begin in the elementary years, and Central Valley leaders are already beginning to address this issue.

Master plan for STW. The district would be well served by developing a master plan for STW that shows what elements will be addressed school by school and year by year. For example, the National Career Development Guidelines are a useful framework for creating comprehensive career guidance activities at each grade level. The team did not see such a scheme, though it may have existed.

Ties to Tech Prep. The implementation of Tech Prep is still in the building stage in the Spokane area, so more connections are likely to occur as faculty members in the high school become more acquainted with academic and professional-technical articulation possibilities with Spokane community colleges.

Staff burn out. There are signs that some staff members are "burning out" because their creative juices can't keep up with the realities of day-to-day instruction and contact with students. As they move onward, SCOPE leaders will need to be aware of the drain on staff and community volunteers.

Central Valley School District List of Persons Interviewed

George Amend, assistant principal
Gerd Ault, employer
JoAnn Breach, teacher
Susan Cairy, employer
Jeff Colyer, student
Melissa Danelo, teacher
Mike Laws, teacher
Molly MacPhee, student
Jerry Martin, student
Mrs. Martin, parent
Mike Pearson, director, vocational education
Cheryl Regnier, counselor
Dan Ruddell, School-to-Work coordinator
Paul Sturm, principal
Tim Taylor, parent and Exploring representative
Maria Tran, student
Ben Williams, student
John Wilson, student

Goodwill Industries
Seven students in art/design technology class

Study Team for Central Valley School District

Larry McClure, NWREL
Dee Adams, counselor, Peninsula Public Schools
Mary Schwerdtfeger, Washington State Board of Education
Brian Seidman, Washington State Human Rights Commission

Columbia River School-to-Work Consortium (Clark County)

Site Report Author: Kim Yap

Introduction

A three-member study team conducted a site visit to the Columbia River School-to-Work Consortium on January 26 and 27, 1995. Site visit activities included briefing meetings; reviews of project documents; interviews with students, teachers, career guidance staff members, and school and district administrators; attendance at project staff meetings; visits to sites providing work experience to students; a focus group meeting with students enrolled in career development classes; and observation of classroom activities. A list of individuals interviewed is included at the end of this site report.

Context

The Columbia River School-to-Work Consortium consists of the three large school districts in Clark County (Vancouver, Evergreen, and Battle Ground), the Clark County Vocational Skills Center, Clark College, and three rural school districts (La Center, Ridgefield, and Woodland) which are served by the skills center. For the last few years, these school districts and the skills center have worked together to build a common vision for transitioning students from school to work. They have initiated and implemented a wide array of projects designed to facilitate School-to-Work (STW) transition. Supported by district and other resources, these STW activities are provided through the collective effort of 15 career guidance specialists, nine middle school career facilitators, and 29 STW coordinators. Progress toward transitioning students from school to work has included a range of activities.

The business community's attitude toward STW is generally positive, as reflected in the following comment from a human resource manager at a manufacturing firm:

> [T]he walls between basic education and vocational education have to come down. Reading, writing, and arithmetic no longer will get people jobs. They need the building blocks for careers. Whether students are college-bound or not, vocational education has tremendous value.

Historically, the Clark County business community has been frustrated over the quality of the available workforce, especially at the entry level. Some high-tech companies reportedly could not fill job vacancies because of a lack of sufficiently skilled workers. At issue also is whether the entry level positions pay a "living" wage to attract qualified workers. According to many career guidance staff members, most high school students want to go to a four-year college because they feel that is the only way to get a good job. As a high school teacher puts it, "All our kids are 'going to college,' but none know what they're going to be."

Attitudes are generally positive toward the career unit implemented at the middle school level. Most parents and teachers are very supportive, although some "academic" parents

see it as a stumbling block. Through the career unit, students understand why they are in school. They see the connection to work beyond just credits. However, honors-level teachers at the high school level are said to be resistant to the program.

In summary, while stakeholders' attitudes toward STW activities are generally positive, outreach and awareness efforts are still needed to get the word out and to enhance the image of STW. The districts have pooled their resources to mount a marketing campaign to educate the public.

Origin and Focus of School-to-Work

The original STW grant application was intended to enable the consortium to make further progress toward its vision for transitioning students from school to work by focusing on the following key goals and outcomes.

Key goals for STW are the following:

1. To provide middle school students with the necessary career guidance and career pathway information to facilitate the transition to high school

2. To improve student learning through a system of performance-based applied academics that supports the six career paths: business operations, marketing and management, science occupations, technical occupations, arts and communications, and social and human services

3. To build a stronger partnership between business and education in order to begin dissolving the barriers between school and work and creating a youth apprenticeship system that leads to employment within the six career paths

Project outcomes identified for STW are the following:

1. Middle school students become aware of their career interests and the world of work, make a smooth transition into high school, and are guided into one of the six career paths by the time they complete the 10th grade.

2. A system of performance-based applied academics is implemented to support the six career paths, and collaborative learning situations are established in which both schools and businesses provide instruction that is relevant and responsive to the performance criteria within each career path.

3. Students have a strong alternative to the college-bound track in a youth apprenticeship which reinforces their academic achievement in school and leads to employment, continued education, and training beyond high school.

The consortium requested $515,123 but received only $170,000 in state School-to-Work grants to implement the program in the county. As a result, the grant is focused on the

first of the three program goals—career guidance at the middle school level. The grant money is used primarily to support middle school career guidance facilitators at the Clark County Skills Center and the Evergreen and Battle Ground school districts; and to provide clerical staff, materials, and staff development in the Vancouver School District. Each middle school building in the Vancouver School District is allotted $2,000 to support professional development activities, including workshops and in-building teacher training. The remaining funds are used to support the work of career guidance specialists, purchase relevant materials, and provide clerical support for the middle schools.

The various school districts and the business community also make substantial in-kind contributions in the form of staff time and materials. For example, the career guidance specialists at the high school level work with middle and junior school staff on various career development activities.

Program Components

Basic design. The STW program is implemented under the direction of a management team consisting of key staff members from the participating school districts, the skills center, and Clark College. In addition, there is a STW coordinating committee consisting of STW coordinators, career guidance specialists, and middle school career facilitators.

The grant money is used to support a variety of approaches to meeting the primary objective of providing middle school students with the necessary career guidance and career pathway information to facilitate transition to high school. At Evergreen and Battle Ground school districts, a full-time career facilitator is hired to provide program services to middle school students. Each career facilitator conducts a stand-alone class on career development and/or serves as a resource person to the regular teaching staff.

In the Vancouver School District, grant money is distributed to middle and high schools to build local capacity to promote career awareness. Specifically, program funds are used to purchase relevant materials, support career guidance clerks, and pay for professional development activities. Each middle school received approximately $2,000 to infuse career awareness activities with existing staff.

In rural districts served by the skills center, the skills center guidance facilitator provides career education for middle school core classes.

Curriculum. The STW program has identified essential career guidance learnings for middle school students. A core curriculum consists of the following essential components:

- Management. Each student will use goal-setting skills with career awareness information to establish an individualized educational plan based on career paths that will be maintained in a portfolio.

- Self-knowledge. Each student will be able to describe how an understanding of self relates to career and educational plans

- Educational/occupational explorations. Each student will understand the realtionship between work and lifelong learning.

- Career planning. Each student will understand the skills and knowledge needed to make career decisions.

These essential skills provide the basis for developing a career portfolio for each student. A portfolio committee is currently researching portfolio types in an effort to develop a standardized portfolio to be used throughout the county. A schedule is being established for all seventh and eighth grade students to participate in career development. The consortium has adopted common career path titles and a common career path brochure is being developed.

The STW activities have affected the pre-existing vocational education courses by providing a focus on the essential skill components. It is anticipated that the STW activities will have a significant impact on academic classes in the future. The consortium staff is working with business leaders to explore approaches to integrating academics with work experience.

Guidance and career development. All students in middle and junior high schools are expected to enroll in the career unit offered by the STW program. In each participating district the career facilitator presents career information to teachers and students. In the Evergreen School District, for example, a three-week course is offered to seventh graders in career development, either as a separate class or as part of a regular class (e.g., social studies). In some cases, the career facilitator serves as a resource person to the regular teaching staff. In the Battle Ground School District, grant money is used to support a career facilitator and to purchase career assessment materials, videos, and computer software. The career facilitator teaches career education as part of a regular class in collaboration with regular teachers. In Vancouver, most middle schools offer career awareness activities as part of a regular class (e.g., social studies). Students receive hands-on activities that expose them to various career options. In some cases, a stand-alone elective course addresses career awareness, goal setting, and planning.

At the end of the course, each student develops a career portfolio which includes the six essential career development learnings identified by the consortium (listed in "Curriculum" section above). The portfolios are transferred and used during their high school years. Plans are currently underway to develop electronic versions of the portfolios for easy access and transition to high school. Also being considered is the development of career portfolio standards that are recognized by both the education and business communities.

Middle school students complete a career interest inventory prior to forecasting for high school. According to career guidance specialists, pre-registration for high school students

has also helped students think about why they are taking certain courses and their relevance to the world of work.

Students participating in a focus group discussion at Pacific Junior High were generally satisfied with the way their school is preparing them for future careers. Through the career development class, they understand that there is no real distinction between vocational and academic skills and competencies. As one student put it, "science is everywhere—in school and in the workplace."

One student said that her father, a pilot, often complains to his family about his job. She feels that if her father had gone through career exploration, he might have chosen an occupation more suited to his likes and dislikes.

The focus group participants seem to have a strong sense of what career paths they would like to pursue. Examples include marine biology, law, medicine, nursing, architecture, and photography. The students have based their decisions on career profiles developed through the career development class.

Pre and post surveys have been conducted with students enrolled in the career unit, with positive results. For example, in the Evergreen School District, a majority (73.3 percent) of the 107 middle school students who participated in the career development unit indicated on the post survey that they can "usually" describe high school classes that are relevant to their respective career choices. On the pre survey, only 5 percent were able to do so. Similarly, on the post survey, 82.2 percent of the students can describe how their likes or dislikes affect career planning. Only 34.3 percent could do so on the pre survey. Other positive results were obtained on the students' ability to develop career plans based on motivation, abilities, and interests (79.2 percent on post survey versus 13 percent on pre survey) and their ability to describe how school courses relate to interests and career choices (81.3 percent on post survey versus 21 percent on pre survey).

High school career centers are staffed by career guidance specialists who provide career awareness and assessment services to students. In addition to serving high school students, these specialists also work with school staff members at the high schools and middle schools to provided career awareness and assessment services to students.

Although each district has its own method of service delivery, the collaboration has resulted in an agreement to adopt some standard forms and processes. For example, consortium members have developed, adopted, and are currently using the "Middle/Junior High School Career Guidance Essential Learnings" based on the National Career Development Guidelines. The essential learnings will facilitate the articulation of middle/junior high students into high school. A draft of "High School Career Guidance Essential Learnings" is currently being developed and will be presented to the STW coordinating committee.

Work-based learning. Students in schools which make up the consortium can participate in job shadowing, mentorships, internships, and community service learning experiences. In the Evergreen School District at-risk fifth grade girls receive special attention from adult women mentors. Students with special needs have one-on-one job coaches at their worksites; those with limited English proficiency have special tutors. Vancouver School District has a Career Focus program that provides daily onsite job experience with credit and employability skills seminars. Battle Ground students can prepare for a career in fire fighting and emergency services through a program with the Clark County Fire District. Paid work experiences are available in a Cooperative Work Experience program.

In 1988, the Vancouver School District started the Career Focus program, encouraging students to stay in school while developing workplace readiness skills and personal responsibility through an alternative learning experience. Students receive credit for learning at various job sites in the Vancouver/Portland area. Qualified persons at businesses or agencies such as the Veterans Affairs Medical Center, City of Vancouver, and the Vancouver School District oversee the students' learning. The program has since been adopted in the other school districts.

Cooperative Work Experience provides an opportunity for students to gain on-the-job experience related to their career goals and vocational-technical instruction being taught in the classroom or lab settings. Students are paid for the work they perform.

The Career Focus and Cooperative Work Experience programs are a promising beginning toward developing even stronger work-based learning opportunities for students who seek relevant, valuable training that can lead to direct employment after high school or an opportunity to continue vocational/technical skill training after they graduate.

School-based learning. These activities provide students the opportunity to develop an individual career plan which includes a portfolio and enrollment in one of six career pathways. Career pathways encourage students to identify their interests, explore various occupations, find out the skills required for success in their area of interest, and then take classes that are relevant to their interests. In addition, high school career centers provide students with information on occupations and postsecondary education as well as individualized counseling to identify interests, abilities, and personality traits, and to develop post-high school education and training plans.

An increasingly integrated curriculum, delivered by groups of teachers or in schools-within-schools settings, includes applied academics in communications, mathematics, biology, and chemistry. Special education is focused on a vocational/academic integrated curriculum. Support for nontraditional career choices for women is provided. For instance, at the Clark County Skills Center, traditionally male and female classes are combined to promote positive working relations between men and women.

The Clark County Skills Center has been a key player in vocational education. Students completing a skills center program receive an interim certificate specifying competencies

acceptable for entry-level employment in their career path. The center offers training in a variety of areas, ranging from automotive technology to restaurant management and hospitality. Credits earned at the skills center apply toward high school graduation requirements. In collaboration with Clark College, some programs provide credits toward a college program. The Running Start program offers advanced placement classes at Clark College and the opportunity to earn an associate degree from Clark or credits toward a four-year college program.

In addition, Clark College is implementing a Tech Prep program to create workplace competencies, align and integrate curricula, and provide professional development activities to secondary school staff. Consortium high schools are developing Tech Prep opportunities with Clark College which are presently focused on business education and machine tool technology. The schools have advanced placement agreements with Clark College and envision future involvement with the Vancouver branch of Washington State University.

Connecting activities. The Columbia River Economic Development Council has provided local workforce information for the consortium's STW effort. Staff members, parents, and school board members have attended workshops in instituting career pathways and performance-based instruction as well as strategies for working with a diverse population. A partnership with the health care community has developed work-based opportunities and career options in health occupations. The Public School Employees Union and the Southwest Washington Child Care Consortium have developed a registered apprenticeship program. Jointly, teachers and a coalition of business representatives are developing descriptions of workplace competencies which are validated by various businesses.

The Educational Service District is developing a community resource database and a computerized communication network between schools is being designed to coordinate work-based learning activities. The network will be available on the Internet. In addition, the ESD Partners in Education Cooperative (PIE) is linking schools with businesses through e-mail.

Career facilitators at the middle and junior high schools and School-to-Work coordinators at the high schools develop and coordinate work-based learning opportunities. In addition, a business-education partnership cooperative established by the ESD provides a half-time coordinator who promotes partnership programs for K-12. Clark College has a full-time Tech Prep coordinator.

Staff development includes team building and curriculum development. The consortium sends teachers to conferences and onsite visits which are helpful in implementing Tech Prep courses. Secondary school staff members take part in field trips to worksites and in summer internships. A symposium on STW issues is being planned.

The districts offer career development activities to students, including job shadowing and internships. The business community has provided guest speakers to raise the career awareness of students.

Promotion. Monthly announcements regarding the STW program are placed in the local newspapers. Posters are displayed in the classroom as part of an outreach and awareness campaign. A common career path brochure is being developed for use with middle and junior high school students and their parents.

Staff development. Major staff development activities have included workshops and a summer conference on vocational education. The topics included the changing world of work, national career guidelines, and relevance of school-based learning with regard to students' career paths.

The STW coordinating committee meets monthly to plan and facilitate collaborative activities. Members of the committee include high school career specialists, junior high and middle school career facilitators, School-to-Work coordinators, and vocational directors representing the Battle Ground, Evergreen, Ridgefield, La Center, Woodland, and Vancouver school districts as well as the Clark County Skills Center. The meeting agenda typically covers a range of STW issues and recent developments in career education.

Business involvement. As a result of (but not funded by) the grant, various partnerships have been formed with a variety of businesses in the greater Vancouver/Portland community. However, students participating in the focus group meeting indicate that at the middle school level, no workplace or community learning is provided. Workplace experience is gained primarily through contacts with friends or relatives during occasional visits to worksites.

There appears to be little, if any, involvement of the business community at the middle school level. While guest speakers occasionally visit the school, their presentations often deal with non work-related topics.

Program Strengths

- There is a general consensus that the STW grant has brought the key stakeholders together to address issues relating to upgrading students' career skills. Consortium members now collaborate closely. This has resulted in the identification of career guidance essential learning skills and the development of career paths and titles.

- There is evidence that the career development class supported by the grant money has a significant impact on the participating students. For example, students in the focus group have a strong sense of what career paths they would like to pursue, basing their decisions on career profiles developed in the career development class.

- The state grant has served as a catalyst to leverage other resources and to bring stakeholders and key players together to address STW issues. There is a sense of direction and people are "on the same page." For example, activities funded by the state grant have served to strengthen existing programs such as the career pathways program and the high school career centers. They have provided consistency in career pathways and assessment tools.

- Support from local school districts has been a significant impetus. The participating districts now have a strong commitment to STW and will maintain the focus even if the state grant is not renewed.

- The approach that the consortium has used to bring stakeholders together to work on STW issues has great promise. It has provided a sense of direction and a means of leveraging new resources. The consortium's approach to coordinating activities, consolidating resources, and promoting consistency has proven highly effective.

Program Concerns

- Key stakeholders indicate that a major challenge has been to keep people "on the same page" and to get agreement on a common format for career portfolios. Other challenges include resource constraints, the uncertainties that come with soft money, and a lack of long-term funding plan.

- Some businesses prefer college students because they are better trained and there are fewer liability issues in hiring college students. Some employers are interested in obtaining cheap labor, but do not see the larger picture concerning STW.

- Support from district administration is critical as more students participate in STW activities. For example, considerable staff time and resources are needed to manage a large number of student portfolios. More resources are needed for computers and software for the development of electronic portfolios.

- There is a need to increase awareness on the part of the regular teachers. Some teachers do not want involvement from business. They are reluctant to participate in business tours to learn more about what skills are needed in the workplace. There is a significant need to help regular teachers understand career education. In the focus group, students indicate that teachers often fail to point out the relevance of school-based learning to the world of work. For example, physical education teachers often neglect to point out the benefits of keeping physically fit, learning how to work as a team, and solving problems as a team. Keyboarding is often taught as mere typing—without relevance to computer use and writing skills. Mathematics, calculus in particular, is taught without any reference to real-life situations or career development.

- At the state level, there is a movement in the Washington legislature to repeal minor work rights. If passed, the legislation will have a far-reaching impact on STW programs. Some Department of Labor staff reportedly told prospective employers that minors are too much trouble to hire. There is also the issue of whether there are enough businesses to offer job shadows and internships to students.

Columbia River School-to-Work Consortium List of Persons Interviewed

Dave Barber, social studies teacher, Fort Vancouver High School (Vancouver)
Jill Carpenter, vocational director, Vancouver School District
Yvonne Cox, business representative
Marilyn Dale, career facilitator, Evergreen School District
Jim Dawson, STW coordinator, Vancouver School District
Tom Dudley, principal, Hudson's Bay High School (Vancouver)
Chris Erdman, business teacher, Fort Vancouver High School (Vancouver)
Bryan Erickson, STW coordinator, Mountain View High School (Evergreen)
Phyllis Goldhammer, Partners in Education coordinator, Educational Service District
Diane Heath, STW coordinator, Evergreen High School (Evergreen)
Linda Herrington, STW coordinator, Hudson's Bay High School (Vancouver)
Tim Hicks, agriculture teacher, Center for Agriculture, Science and the Environment (Battle Ground)
Donna Jefferies, English in the Workplace teacher, Hudson's Bay High School (Vancouver)
Nancy Johnson, Tech Prep coordinator, Clark College
Bob Lutz, career facilitator, Clark County Skills Center
Chris Martinson, career guidance specialist, Evergreen School District and vocational director, La Center School District
Cheryl Mayo, former vocational director, Battle Ground School District
Lynn Olson, assistant director, Clark County Skills Center
Sue Smyrak, career guidance specialist, Columbia River High School (Vancouver)
Dick Snyder, vocational director, Battle Ground School District
Brent Stephens, engineering tech teacher, Fort Vancouver High School (Vancouver)

Five students participating in STW activities at the Veterans Medical Center in Portland (Vancouver) were interviewed. Eleven students at Pacific Junior High School (Evergreen) participated in a focus group discussion.

Study team members also attended a meeting of the STW coordinating committee and a middle school career guidance staff meeting at Fort Vancouver High School on January 26, 1995.

Study Team for Columbia River School-to-Work Consortium

Kim Yap, NWREL
Karen Blaha, NWREL
Shannon Wiggs, assistant principal, Peninsula School District

Goldendale School District

Site Report Author: Francie Lindner

Introduction

A team of four people conducted the site visit at Goldendale School District on February 2 and 3, 1995. Site visit activities included an overview and review of program materials; a focus group with nine students, classroom observations, interviews with numerous staff members, community business representatives, volunteers, counselors, principals, career specialists, worksite supervisors, a work-based learning coordinator, and a parent; and a debriefing at the end of the site visit. Visits to worksites were conducted as well. Interviews were conducted with the principal, vocational director, applied academics instructors, the career specialist, a counselor, representatives of the business community and a parent. Class observations were conducted for applied mathematics, applied biology/chemistry, applied communications, auto CAD, and CRT/computer repair. Worksite observations were conducted at the Klickitat Valley Hospital (pre-nursing and x-ray departments) and Howie's Alignment and Exhaust. Interviews with the worksite supervisors were conducted during the visit. A list of individuals interviewed is included at the end of this site report.

Context

Goldendale is located in southern Washington, 14 miles north of the Columbia River and 100 miles west of Vancouver. The landscape is dramatic with rolling hills that produce wheat in the summer. Beautiful vista views of Mt. Hood and Mt. Adams place this community in a spectacular location for a small town environment. It is a rural and agricultural community of 3,500 people. At the high end of the community's socio-economic structure are wealthy farmers. The middle class consists of social service employees, educators, the medical community, and those who hold jobs in manufacturing. Three hundred and four (304) families are on AFDC, with 52 percent of the student population on free and reduced lunch plans. There are broad disparities between the upper, middle, and lower income households. The unemployment rate is 10 percent, one of the highest in the state. There is little employment for high school graduates in the community; most graduates leave the area for a few years for employment in the metropolitan areas. Some return to raise their families. The families tend to be blended. There are a few clusters of American Indian and Hispanic families.

Goldendale High School, an exceptionally well-maintained facility, was constructed in 1976. The school seems to be the central focus of the community, not just for educating youth but also as a focal point for sports and entertainment. The community has increased involvement in the educational policies of the school system. There were 25 community members on the Strategic Planning Committee, more than 30 non-duplicated community members on various voc-tech advisory boards, and a strong parent-teacher organization at the primary and middle schools. The January 1995 school enrollment was 485 primary school students, 441 middle school students, and 456 high school students.

Students from the focus group said they find the quiet community less than ideal since it does not have even a movie theater and The Dalles is a 35-mile drive away. Law and order are well maintained. There is an 11 p.m. curfew for the youth of this community and those found in the streets after that time are fined.

One parent who was interviewed said she did not want her children to eventually settle in Goldendale because it has no employment possibilities for them. Parents are very concerned about the increasing numbers of welfare families moving into the community. The community seems to be relatively conservative, with the attitude that development and growth are not necessarily positive.

Several of the community people interviewed thought highly of STW and of the district's efforts to implement career pathways.

Origin and Focus of School-to-Work

The original objectives of the School-to-Work proposal were to develop a comprehensive academic/career development counseling program incorporating career pathways and using staff members as career pathway advisors; to develop articulated agreements with Yakima Valley Community College in Tech Prep, providing a seamless transition for Goldendale students to YVCC; to provide an educational awareness program for the community, parents, and students in order to motivate and recruit students; and to have students complete a more rigorous and useful program of studies.

In June 1993, the school district adopted a strategic plan that outlined elements similar to the School-to-Work components. The fourth goal of that plan was to prepare graduates with marketable job skills and to prepare them for postsecondary education. Some of these components were planned and underway when School-to-Work funding became available. The district's receipt of grant funds made it possible to go ahead with the initiative and helped the school pull together the various components already underway into a cohesive framework for School-to-Work. One of the action plans for the strategic plan was to contract with Decision Research, a survey firm in California, for a post-high school survey to determine whether students are responsible, productive members of society. The survey will be conducted each year with assessments of the results after years one, three, and five. Another proposed action was to implement a career pathway program based on the Woodland, California, model. Students would be given an interest inventory, and would be required to complete a pathway and develop a portfolio, started in the eighth grade and completed in the 12th grade.

The district received a total of $91,000 in state School-to-Work grants for 1993 to 1995. Beginning in 1994 the school district hired a paraprofessional to assist the counselor in "career pathing" all eighth graders. A levy line item for a career pathway specialist was passed in spring 1994 for $40,000, with vocational funds paying for the remainder of the salary.

Booklets for the six career paths were developed. Inservice training on the Woodland model introduced the concept to the Goldendale staff. The School-to-Work grant helped move the process ahead by three to four years and helped pass the levy funding for the career pathway specialist position.

Before the School-to-Work funding, Goldendale received applied academics videos to introduce applied academics to the staff. The school district paid them for time and travel to attend summer training in applied academics methods and curricula. Applied mathematics and biology/chemistry were partially funded through School-to-Work and vocational funds.

Program Components

The following activities provide the framework for School-to-Work at Goldendale:

- Grades K-6, career awareness
- Grades 7-12, career exploration
- Grade 8, career interest inventory, Career Pathways introduced
- Grades 9-12, career path counseling, job shadowing
- Career path booklets
- Career path advisor
- Portfolio
- Community Resource Training program (CRT)

Additional components related to School-to-Work are the following:

- Pathways and applied biology/chemistry required of all ninth grade students
- Service learning opportunities
- On-the-job training (50 students)
- Applied academics (mathematics, biology/chemistry, and communications)
- Staff development (conferences and training)

Promotion. School-to-Work and career pathways are promoted through counseling with booklets describing the paths at the eighth grade and above. All eighth grade students choose one of six paths :

- Business and marketing
- Technology and natural resources
- Business operations and communications
- Engineering, science, and medical
- Creative, performing, and applied arts
- Human services

Students become aware of courses needed for their pathway and make decisions on their courses based on the paths. Applied Communications and Applied Mathematics were added courses.

All eighth grade students receive an orientation to Pathways. At the ninth grade, there is a parent and student orientation, a Pathway advisor, brochures, packets, and World of Work posters in every classroom. Parents must respond in writing or via telephone conversation with building administrators or counselors before students begin classes. All students in ninth grade are required to take applied biology/chemistry. The career specialist was hired full time. All students meet with the career specialist and/or school counselor. Extensive effort is made to inform students and parents about Pathway activities. All eighth grade students and their parents are sent a letter describing Pathways. The career specialist makes follow-up phone calls to the students' homes to update parents and to arrange an appointment with the student three times during the year.

Work-based learning. Work-based learning opportunities are limited. The Community Resource Training program (CRT) has been in place for many years and gives students a focus for their coursework by providing work-based learning for 45 students. Students in this program spend between 90 and 180 days for one to two hours a day on a work-based learning activity such as radiology, nursing, or automotive technology. Students self-select. At present there are not enough training positions in the community to provide all students with work-based learning experiences. There is related classroom instruction.

Staff development. Staff development is provided based on needs prioritized by the faculty. Sign-up is voluntary. The administration strongly encourages faculty members to participate. Those teachers and staff members who go for training share what they have learned with those who do not go. Staff members have participated in the following activities:

Work Now and in the Future conferences
School-to-Work/Tech Prep conferences
Vocational Directors conference
Workforce 2000
Seamless work-based learning workshops

The staff has also received training on subjects such as multiple intelligences and learning styles. Primary emphasis has been on applied academics, School-to-Work transition philosophy and practices, and computer applications.

Collaboration with business and industry. At this point organized labor is not involved in School-to-Work at the school. Businesses provide work-based learning experiences for students. These activities are organized by the Diversified Occupations/Community Resource Training coordinator. The hospital provides scholarships for the graduating seniors participating in the CRT program.

Assessment and evaluation. Portfolios for all students beginning in the ninth grade are one part of assessment. Student competencies are listed in the portfolios. The post-high school survey will provide data on outcomes for students in terms of employment after graduation.

Program Strengths

The early development of the strategic plan guided the development of the School-to-Work focus and implementation. This gave the school district a head start on implementation. The goals and objectives were laid out early with staff buy-in and participation. The introduction of applied academics and the School-to-Work funding helped to further the vision and long-range goal of providing a sequence of learning opportunities for students while they focused on their career pathways.

The visionary staff of the high school helped formulate the process and implementation of the program so that students would be on board by fall 1994. This gave the school a head start on promoting the program to staff, students, and community members.

The early introduction of career pathways concepts to students, parents, staff members, and the community supported the development of the School-to-Work project in many ways. The district already had in place the concepts for work-based learning, lending itself to the overall plan of School-to-Work. With all these in place, Goldendale School District was able to implement the project in a short time. Students in the focus group were well aware of their pathway and said that Pathways helped them clarify which courses to take and why they should take them. They said the Pathways program clarified their reasons for being in school.

Staff development, focusing on the scope of School-to-Work, assisted the district in many ways. Staff development included training for the teaching of applied academics and instruction in new models of teaching and learning, and is bringing the community on board with the concept of work-based learning.

The Pathways model and commitment to School-to-Work supported the ongoing components. The administrative leadership and general staff acceptance of Pathways and School-to-Work complemented the development of emerging programs that focused on these areas. The timing of the School-to-Work funding and relationship to the strategic planning process was a natural fit. The school climate was very positive with the facilities and atmosphere conducive to learning the concepts of School-to-Work. Students are on track, focused, and have a strong work ethic.

Program Concerns

- Business and labor participation needs to be broadened and increased. Business partners need a better understanding of School-to-Work purposes and outcomes.

- The community needs to receive more information on School-to-Work and why it is being implemented.

- Decision making and control within the walls of the school are centralized among top-level administrators.

- Some of the teachers are not supportive of the Pathways model.

- There is little evidence of understanding or support for Pathways and School-to-Work at the elementary and middle schools, nor is there evidence of cooperation between and among all three levels.

These are areas that could be improved with additional funding and support, particularly for teacher inservice training.

Goldendale School District List of Persons Interviewed

Becky Bare, career specialist, Goldendale High School
Ronee Boardman, business/community representative
Amber Boe, student, Goldendale High School
Jenny Boothe, student, Goldendale High School
David Davidson, student, Goldendale High School
Sohn Kartes, business/community representative
Candy McCredy, teacher, applied communications, Goldendale High School
Bob Moco, vocational director, Goldendale High School
Pat Scarola, parent
Jim Thrasher, principal, Goldendale High School
Lynn Wanless, teacher, applied biology/chemistry, Goldendale High School
Bruce Wollam, counselor, Goldendale High School
Dan Young, teacher, applied mathematics, Goldendale High School

A focus group of eight students from Goldendale High School

Study Team for Goldendale School District

Francie Lindner, NWREL
Rob Fieldman, vocational program specialist, Workforce Training and Education Coordinating Board
Pheeson Liaw, instructor, Everett Community College
Roland Smith, technology instructor, Peninsula School District

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Grand Coulee Dam School District

Site Report Author: Roy Kruger

Introduction

A three-member study team conducted a site visit to the Grand Coulee Dam School District School-to-Work (STW) program on February 6 and 7, 1995. Site visit activities included a briefing meeting; reviews of project documents; interviews with students, teachers, the career center guidance counselor, school and district administrators, and community worksite managers; visits to worksites providing work experience to students; a focus group meeting of students from across all four high school grade levels who are enrolled in Lake Roosevelt High School Career Pathways courses; and observation of classroom activities. A list of individuals interviewed is included at the end of this site report.

Context

The Grand Coulee Dam School District consists of an elementary, middle, and high school. For the past several years the Lake Roosevelt High School STW team, with the approval of the district administration, has developed a common vision for the STW program for the school district. The high school STW team has initiated and implemented a wide variety of projects designed to facilitate STW transition. At the present time, the major thrust of the STW program is in the high school. The elementary school is interested in developing and implementing a career counseling program that would focus on general occupational categories.

The community of Grand Coulee is located approximately 90 miles northwest of Spokane, and is on the Colville Indian Reservation. The Grand Coulee Dam area has very little private industry. Although there are some small medical- and travel-related businesses, the major employers in area are the United States government and the Colville Confederated Tribes. This situation creates two major problems for the school district. One problem is that government properties and Colville Tribal lands do not contribute property tax revenues for the district. Yet 35 percent of the school district's students come from the Colville Reservation. The other problem is that there are a limited number of private industry worksite opportunities available for students. The best worksite opportunities for students have been at the chiropractor's and physical therapist's offices, and the hospital.

The educational and economic backgrounds of students in the district are diverse. This has contributed to a situation in the past several years in which the school district has students who achieve As and Bs, and those who achieve Ds and Fs, with no students in the middle. The STW program was instituted to address the needs of both student constituencies. With 70 to 80 percent of all Grand Coulee Dam high school graduates not going on to a postsecondary education, the STW team has made a concerted effort to work with the community, businesses, and government agencies to prepare graduates with the skills they need for entry into the work world.

The STW program appears to enjoy support across the Grand Coulee community. Parents who were interviewed said that they could see a major difference in their children. Freshmen were aware of the post-graduation options available to them and knew what they needed to do to prepare for each option. Their perception was that all high school classes were working toward the same goal, preparing them for the real world.

The small business owners interviewed were also supportive of the program. They said that students were providing an important service for their business. They also feel the program gives them an opportunity to contribute back to the community by giving students an opportunity to obtain business experience.

Students also appear to be supportive of the STW program. They feel that they are able to find out, or at least have an idea, of what they want to do after graduation. They like being able to see workers at their jobs and see what they "really" do. The STW program gives them a perspective on what life will be like after high school. One student said, "It gives you a smoother transition to the real world, and I've learned a lot from spending so much time with my mentor." Teachers and parents have seen major improvements in the level of student achievement and involvement in school.

Through the STW program teachers have a high level of awareness and interest in making sure that students are in the right classes for a specific career pathway. This year some teachers needed to rearrange schedules and increase class size to accommodate the needs of students. This was accomplished with a minimum of teacher complaints. Teachers felt that they had input into the process and understood the necessity of meeting student needs.

Origin and Focus of School-to-Work

The STW organization is a flat, teacher-driven organization with one STW coordinator and two chairpersons. The STW coordinator is the director of vocational education and took over the responsibilities of the coordinator position as an extension of her duties. All staff members appear to be strong leaders. The STW team represents an exemplary "learning organization." Its major challenge will be institutionalizing this learning organization into the regular district structure before a number of the key teachers retire.

The Lake Roosevelt STW program is largely the product of the teaching staff, under the strong leadership and direction of the STW coordinator and co-chairs. The program has been teacher driven and the teachers take full ownership and pride in the program. Teacher excitement and enthusiasm permeated throughout the staff observations and interviews. Originally teachers decided that they needed to do something several years ago after a graduation ceremony. Members of the STW team were not satisfied that students were prepared for life after high school. They decided to find ways to restructure their curriculum that would excite students, provide opportunities for learning basic workplace skills, and make students aware of all the post-graduation options that were available to them.

During the initial planning stage, one of the students brought in a book he had obtained from a Watsonville, California school district, detailing a STW type of program developed and implemented in their schools. This book was instrumental in motivating and validating what the STW planning committee was trying to accomplish. The planning process helped to focus the efforts of the staff and bring academic and vocational teachers together. The district has given teachers a free hand in developing the program. A comment made repeatedly was that this was a teacher-developed project, with the district administration being supportive as long as it didn't cost them money or personnel resources. The district received a total of $81,200 in state School-to-Work grants for 1993 to 1995.

Teachers emphasized the fact that the original STW program team was comprised of many teachers with few years of teaching left before retirement. One of the study's findings was that many of the teachers who are presently instrumental in the program either have children in the high school or late middle school. The evaluation team's impression was that this appears to be a major motivator for teachers to be involved in implementing curriculum changes created by the STW program.

A site council comprised of parents and community members provides the STW team with valuable insights for continual program development. This council is also active in participating in the senior oral boards. Every senior makes a presentation of his or her Personally Responsible for Excellence Portfolio (PREP) (important projects, grades, resumes, and other items) before five to six community members. The board in turn can ask questions and the student must receive a "pass" as one of the graduation requirements. A number of council members have requested that they be given extra time to review the student's PREP portfolio before the 25 minute oral examination. This is one of those "best practices" mentioned repeatedly by teachers, students, parents, and community members.

Many of the teachers interviewed felt that the difficult part that awaits the school district will be to implement a comprehensive STW program across all the schools: elementary, middle, and high school. The superintendent wants to move on implementing such a comprehensive STW program in the near future. Because the middle school principal has been ill for the last two years, everything has been put on hold at the middle school. The elementary school teachers have been busy bringing business people into their classrooms.

The major objectives of Grand Coulee Dam's STW effort are to develop appropriate and effective performance assessments, strengthen the academic program, and raise student performance and achievement.

The overall goals of the STW program are to do the following:

- Give students tools necessary to be successful in a global society
- Prepare students for the world of work

- Meet the needs of all students, not just the college bound
- Educate students to graduate high school with competencies, not just a diploma
- Prepare students so they can perform in the community and have computer literacy and writing skills
- Give students experiences in high school which will prepare them to make choices about what they will and will not do after high school

Program Components

The planned sequence of STW student activities is as follows:

Freshman year:	Career Pathways; PREP portfolio; an applied communications course; a technical component course within the chosen pathway
Sophomore year:	PREP files; attitudinal tests (WOIS, COIN); biology/English tie-in; job shadowing
Junior year:	Armed Services Vocation Assessment Battery (ASVAB) test; career connection and pathways; job shadowing; mentoring by community members; begin college scholarship searches and essay writing; U.S. history/English course
Senior year:	College search; scholarship assistance; attitudinal tests; applied humanities; senior project (researching an occupation or area of interest and participating in a related activity where appropriate); senior oral boards

The STW program has changed the courses students take in that there is now a semester final for each course at each level. Students have a heightened awareness of academic requirements. Parents (or guardians) are required to be present at the pre-registration conferences.

The thrust of the program is to assist students in finding out what post high school options are available, and what they must do in order to succeed at a particular option. Students investigate what classes they need to take in high school and what types of skills and experiences are needed for entrance into the job market or postsecondary school. The major benefit of STW cited by interviewees was that students appear to have an idea of where they are going after high school.

All of the students participate in the STW program, including the alternative education program students. The curriculum also accommodates special education.

Career Pathways. The standard core of the program is the Career Pathways program. All students are expected to select from among the five specialized career paths:

- Industrial technology
- Engineering, scientific, and environmental
- Arts and communication
- Health, home, and human services
- Business and marketing

Once a career pathway has been selected, students and teachers are expected to develop a student schedule from the Career Pathways core classes. The basic core is a rather restrictive schedule with few electives. Although some students may qualify to substitute satellite and Running Start classes, a complaint of students is that they were not told of these particular opportunities. The high school did not promote Running Start and students only found out about it through word-of-mouth. Tech Prep is still in the development state with Big Bend Community College.

PREP portfolio. Each student develops, maintains, and updates a PREP portfolio which is kept in the career center. Copies of special projects, grades, letters of recommendation, a resume, and any other materials selected by the student are kept in the PREP portfolio.

Job shadowing. Students can avail themselves of job shadowing experiences at any time from their freshman year on, and of mentoring opportunities during their sophomore and junior years. These experiences prepare the students for their senior work experience in which they spend time at the worksite learning job skills.

Although the basic core program for all students is the PREP portfolios and Career Pathways, in two months job shadowing will become a core requirement. Because of limited funds, the district has been forced to work on program development issue-by-issue. The expanded job shadowing program will be a direct result of the Career Connection program (see below).

Job shadowing is a one-day program for students. The activity is now done at the junior and senior level. The plan is to implement this program at lower grades over time. Ultimately job shadowing would begin at the middle school level.

Career Connection. Students see the program mainly as Career Pathways and PREP portfolios. In the next few months the Career Connection will be implemented at the high school. The Career Connection coordinators are paraprofessionals who will be actively involved in networking and working with the community to develop student worksite opportunities; in some districts this is the responsibility of the STW coordinator. The Career Connection will address one of the major weaknesses students perceive about the program, which is that they now must develop their own worksite opportunity. Teachers may suggest potential sites, but students must apply for the opportunity with the business

or government agency on their own. Students want the school to take a much more active role in work experience development.

Integration of academic and vocational programs. There have been attempts to integrate the vocational and academic skills as a part of school-based learning. An example is the keyboarding class in which students learn the use of computers and basic programming skills. The skills that are learned in this class become requirements in other classes.

All ninth graders are enrolled in a two-hour applied communications block which includes ninth grade English and keyboarding. One way in which the modified English classes contribute to work-based learning and integration of worksite experiences is when students develop resumes and learn vocabulary used by specific businesses in their career pathway.

An instance of work-based learning experiences contributing to academic courses occurred when changes were instituted in a biology class because of feedback from the community's physical therapist. Also, people from the community are invited to come and make presentations in classes. Students said that the worksite experiences have shown them that what their teachers tell them is true.

One interesting project is the hydroponics electric hothouse in the biology class. Students grow bell peppers and herbs and sell them to local businesses to raise money for other projects.

The industrial CAD class has assisted the City of Grand Coulee in redesigning the bathroom facilities at a local park to accommodate people with handicaps. This class has also designed a playground for the alternative school day care center.

The Grand Coulee Dam Federal Credit Union has installed one of its branches at the high school. The high school branch has a board of directors comprised of students and run by students. The board members, who were voted in by students, are responsible for making all policy decisions (subject only to veto by the home office board of directors and federal regulators). Although students do not receive pay for their efforts, the skills they learn make them prime candidates for paid positions at the main credit union branch during summer and vacation periods. Other high schools served by the GCDFCU have asked to have branches in their school if this experiment works out. The credit union estimates that the cost of installing the branch in the school is approximately $7,000 (the equipment was donated by the manufacturer). The student employees were still being trained during the site visit, with March 17 set for the grand opening. The Home and Family Life classes will be catering the credit union's open house.

One of the student credit union's first clients will be the hydroponics electric hothouse, which will be applying for a small business loan in order to establish its herb marketing enterprise.

The alternative school has an impressive integration of academic and vocational programs. Students graduating from the alternative program receive a regular Lake Roosevelt diploma. While maintaining the same graduation requirements, the school has flexible options and course configurations. Students are encouraged to take as much of the traditional program as is appropriate. The best word to describe this program is accommodation.

Work-based learning. Student worksite experience does not appear to include structured training following a planned curriculum. Worksite mentors send biweekly student activity reports to teachers. Teachers contact the employer informally if particular issues arise. It appears that many of the worksite situations are clerical in nature, though the number of hands-on activities and experiences are expanding. At the medical worksites students are allowed to do limited hands-on activities. The school plans to implement a job-shadowing program for teachers; this may foster a stronger coordination of the worksite experience and academic curriculum.

Counseling and guidance. The pathways, PREP portfolios, and pre-registration and registration procedures instituted by the STW program have increased the level and depth at which the process of career-orientation counseling is now done with each student.

Each student is given the WOIS, COIN, and CACHE (a national version of the WOIS) occupational surveys in English class. The district found that the Discover program was too expensive for the school. The high school's career center is investigating the purchase of WOIS Junior and COIN Junior for use in the middle school.

The school counselor plays a minor role in the STW program. His primary role is as a crisis manager.

Remediation. The school is trying to get funds to build a remediation center to improve the retention of students in STW activities. The school tests the skill level of all incoming ninth graders as part of a retention strategy. They would like to hire a remediation teacher for the summer.

Promotion. The STW team has put together a video describing the program which is shown to students and teachers throughout the school. The team is developing its second video for promoting the program internally to teachers and students, and externally to community members. The program is also promoted in Career Pathways brochures, school and local newspapers, and school bulletins.

Staff development. The high school teachers decide what development needs should be focused on and the group tries to allocate training opportunities equitably to individual staff members. When staff members come back from a training event, they make an oral presentation to the faculty and develop a written report for distribution to the staff. The topics which are most needed for staff development over the next year are integration,

performance assessment, dealing with dysfunctional students, remediation, and work place learning. The school will try to emphasize remediation in the near future.

Business and community involvement. Representatives of businesses and the community have been involved in all aspects of the STW program. People in the community have done everything that the school has asked them. They serve on the senior orals boards. They give input on what skills and knowledge the students need for the world of work. Senior citizens have participated on the senior oral boards.

One of the community members said that more parents and community members would be willing to help, but they're not sure how. A doctor said that he felt the school needs to facilitate the involvement of parents without "telling them what to do."

Organized labor has not played a part in the Grand Coulee Dam STW program.

Funding. The program was fully funded by the STW grant. In addition to the STW grant, all other grant requests such as Carl Perkins, SLIG, and Sex Equity have been written with a STW emphasis.

State policies. The STW program has not been affected by state policies. A major reason has been that the school has not asked for any waivers in implementing the STW program. The school has not developed new curriculum requirements, but just strengthened the existing ones. The program has enhanced the curriculum with more demanding student outcomes.

Program Strengths

- Most of those involved with the program feel that it has had a very beneficial effect on the academic and career skills of students. There is now close collaboration between teachers, counselors, and community members in developing academic and career pathways programs for students and being supportive of the needs of particular students. In turn, students feel that teachers take more time to help them with their planning.

- The primary strength of the program is the people involved, both the staff and community. The program is a cooperative effort by teachers, not administratively driven.

- The program encourages career exploration and provides linkages with the community through the Career Pathways Center.

- Students feel that the STW program not only gives them an opportunity to learn about jobs they might like to go into after graduation, but also gives them the opportunity to stand out from all the rest of the people they will be competing with for those jobs.

- Students have an idea of where they are going after high school. Out of 90 PREP career reports last year, only two mentioned college as the only option. Not as many of the students list professional sports as their main focus in life. Students are familiar with the vocabulary of college admissions: SAT, Pell grants, related costs, and so on. This is especially important when recruiters come to the campus.

- In addition to knowing what they want to do after high school, students now know what courses they need to take, and what else needs to take place in order for them to accomplish their goals.

Program Concerns

- A major weakness of the program is that the counselor is overloaded. He is unable to spend time away from dealing with crises to counsel students about their academic choices. Students would like more counselors.

- Students would like the school to make more satellite classes and Running Start available. Students feel that the school is reluctant to promote these alternatives because of their cost to the school.

- Students would like to have the career center open in the summer and they wish all career-related services could be centralized within the center. Students find out about scholarships from the center, but then have to go to the counselor's office for assistance in getting the paperwork completed.

- Students want more mentors in the community so they won't have to seek out the senior experience worksite positions by themselves. (However, in Diversified Occupations coursework, students are required to find sites as part of their learning and job seeking experience. The point is to find a job, not to be given one.)

- Teachers feel they needed more time to build and grow with community involvement. There isn't enough time for them to work together as a group and not enough money to expand the program all at one time. Because of limited resources, some students, especially sophomores and juniors, feel left out of many STW program benefits. This problem should be solved over the long run as more and more programs are instituted at the ninth grade level and continued through graduation.

- Some of the teachers say that the needs of better students are not being met, the rural isolation is bad, home support is poor, and students don't take advantage of the pathways and PREP files. Some of the vocational staff members put pressure on academic instructors to collaborate in integrating academic and vocational learning.

- The staff members believe that vocational and academic classes need to be interlocked in a comprehensive restructuring.

- Labor unions have not been a major player in the STW program. Individual workers have worked with students, but the official union organizations have not been involved at all.

- A strength which could become a concern is the dominance of the STW team leadership. This leadership was needed to get the program up and running; however, there is now a need, acknowledged by the team, to bring the STW program under the structure of the district governance if it is going to be maintained over the long run.

Grand Coulee Dam School District List of Persons Interviewed

Denise Anderson, applied communications teacher
Frank Ayers, mathematics and science teacher
Jeanie Beery, Pathways coordinator
Darrel Benner, diversified occupations teacher, STW co-chairman
Sue Bjorklund, parent and elementary teacher
Doris Bonertz, Elmer City Hall office manager, worksite supervisor
Chuck Boyd, auto CAD and applied mathematics instructor
Steve Breeze, counselor
Shelly Crobin, community representative
Larry Curtis, social studies teacher, STW co-chairman
Rich Graham, principal, Lake Roosevelt High School
Florence Hegwer, Career Connections
Steve Hood, auto mechanics teacher
John Houston, U.S. Department of Interior, Bureau of Reclamation
Vicki Jess, parent
Susan Kennedy, U.S. history teacher
Dr. Rick King, physical therapist, worksite supervisor
Erik Lampi, foreign language and biology teacher
Sally McDowell, English instructor
Debbie Miller, Grand Coulee Dam Federal Credit Union marketing manager
Joyce Moore, health occupations instructor
Gail Morin, health and home and family life instructor
Sharon Nissen, grandparent
Gordon Proctor, physical education instructor
Kathy Proctor, vocational education coordinator, STW coordinator
Darlene Price, Career Connections
Dennis Przychodzin, superintendent
Ralph Rise, science and mathematics teacher
Cathy Shields, home and family life alternative school instructor
Dr. Robert Skordas, chiropractor, student worksite supervisor
Judy Sprankle, parent
Jim Wheeler, special education instructor
Ian Wilder, alternative school instructor
Vicki Zowada, parent and vocational aid
Linda Zlateff, parent

Focus group of eight Lake Roosevelt High School Students.

Study Team for Grand Coulee Dam School District

Roy Kruger, NWREL
Sheryl Havens, counselor, Riverview School District
Sandra Moody, School-to-Work coordinator, Liberty Bell Jr./Sr. High School, Methow Valley School District

Issaquah School District

Site Report Author: Francie Lindner

Introduction

A three-member study team conducted a site visit to the Issaquah School District on January 30 and 31, 1995. An orientation to the project preceded staff interviews, class observations, a student focus group, an advisory committee meeting, and site visits to worksite learning locations. A list of individuals interviewed is included at the end of this site report.

Context

Issaquah is a small suburban community located in a valley surrounded by mountains, giving the community an idyllic, picturesque landscape. It has undergone steady economic growth and been transformed over the past 20 years from a rural farming community to a bedroom community for commuters who work in the Seattle metropolitan area.

The rapid population and economic growth over the past 20 years is evidenced by the new construction and renovation of the downtown area. Older and less-maintained houses are visible within one block of the renovated district. Theater is an important feature of the community, with an active company in an older theater and a new performing arts center that has just opened. These institutions provide cultural activities and live theater to the community. Issaquah is now primarily an upper- and middle-class community with a highly educated White population. There are few minority students in the school system.

The majority of Issaquah's commerce consists of small businesses and entrepreneurial enterprises. With the continued development of the I-90 corridor, larger corporations are moving into the area. Issaquah's major employers include Zetec, Siemens-Medical Systems, the Issaquah School District, Darigold, the City of Issaquah, Henry Bacon, QFC, Safeway, Puget Power, Boeing, and two major shopping malls.

The school district has phenomenal resources for multimedia education and technology. Students are exposed to state-of-the-art technology and learn on new equipment. Gender barriers are breaking down as girls are equally represented in the technology classes. Role reversals are obvious here as students develop, maintain, and provide support to adults on the newly wired (by students) local area network (LAN). Students instruct teachers in the use of e-mail and LAN through a course entitled Technology Information Project.

Issaquah School District serves approximately 9,500 students in 10 elementary, four middle, and three high schools. The district is expected to grow to 15,000 students by the year 2000.

To accommodate the growing demand for more contemporary curricula the schools have developed courses in which students learn new technologies and their applications. The Home and Family Life department has added courses in sociology which include

economic, political, and cultural aspects of society. The vocational courses have changed to more technologically-based classes, including the Technical Theater Performance and Production class which stresses communication technologies.

In this innovative climate students provide peer instruction on the use of video editing in a cooperative-learning environment. This flexible structure of teaching and learning helps the school make best use of its resources and allows students to expand their learning experiences beyond the standard format of classroom lectures. Hands-on opportunities help them improve their skills; they learn by expressing themselves in a variety of media and sharing what they know with those who are interested. The potential for relevance, motivation, and validity for students is high.

Origin and Focus of School-to-Work

Before School-to-Work (STW) funding several components of STW were already in place. The school had already begun the job shadowing program in one of the middle schools, the Technology Information Project (TIP), and some student internships, and had a vision for Pathways. The fragmented pieces provided an early introduction of concepts that helped with the planning and development of a larger and more cohesive program when STW funding became available.

The district received a total of $73,500 in state School-to-Work grants for 1993 to 1995. To accommodate the growing social/cultural needs of the community, the schools have focused on humanities and high technology choices for the STW project. The foreign language department is now offering occupational credits for advanced foreign language classes because these now incorporate significant career education activity and SCANS skills. Many local businesses are using foreign languages to work with international markets and some expect a need for Spanish-speaking workers. Students are learning that their foreign language skills will be useful for many careers. In one project they are divided into corporations to develop a product and market it in Spanish. They are learning how to do business in an environment culturally appropriate for Latin American countries.

Program Components

Work-based learning. After taking a career focus test, eighth graders participate in a one-day job shadow, documenting their experience in a career portfolio which follows them to high school. Job shadowing is organized through the required humanities class. Students are prepared for the job shadow experience by practicing appropriate behavior in the workplace. Many students prepare a classroom presentation based on their job shadow experience. Ninth graders at the high school also go out for a one day job shadowing after a career unit that helps them research a career, write a resume, and have a practice interview experience.

Students of TIP provide support to the school district's local area network (LAN). Students have been involved in paid and unpaid work experiences with Microsoft that involve them in areas of software testing, network organization, and administration. Student internships in the community provide opportunities for students to experience

real-world working environments with responsibilities and the expectations of their employers. For example, students interning at the local performing arts center provide assistance to the theater staff in lighting, sound, costuming, stage setting, and show management.

School-based learning. Students do a career inventory, develop five-year plans and begin career path plotting in middle school. Students are provided with career inventories using the Vocational Interest Experience and Skill Assessment (VIESA) testing program. The Job O is administered to ninth graders, and the Self-Directed Search is used by 10th graders. The Strong Interest Inventory and Career Assessment Inventory are administered to 11th and 12th graders. High school department heads are developing performance-based learning through the integration of academic and vocational curricula. Career Path brochures identify the career paths implemented at the high school this March. The following career paths have been identified:

- Technology, engineering and science
- Business and marketing
- Health and recreation
- Arts and communication
- Education and social services

Performance requirements for graduation reflect the SCANS skills. A job board reflects the community model based on the Employment Security office. Before students may apply for a particular job they must have on file in the career center the following materials:

- Typed resume and cover letter
- Practice interview score sheet
- Teacher evaluations
- Attendance history and grade transcript
- Basic skills tests if available

A survey of graduates was conducted this year to determine current employment and/or postsecondary education and training. The information will be compiled and shared with the community and with educators to improve current educational practices and student career guidance efforts.

Goal 4 of the state's Essential Learning Requirements (relating to preparation for work), a site based council, and the STW funding helped provide focus and structure for the current program. STW was written into Goal 4 for the 1209 grants at the participating STW schools. Integrated career paths in the building provide the structure and sequence for courses. Students can get both academic and vocational credit and can complete graduation requirements in occupational classes, freeing their schedules for more electives relating to career paths.

Promotion. The STW coordinator makes presentations to classes, informing students about STW. She also has given presentations to curriculum directors, vocational teachers, secondary counselors, elementary counselors, and community groups, and at faculty meetings and middle and high school principal meetings. Career infusion workshops will be held to promote the idea of integrating career and vocational information with the daily classroom routine as a method of instruction. Staff members are learning to juggle their priorities and look at their jobs in new ways. Counselors are reviewing their role as resource person as opposed to crisis management provider. The career information specialist works with teachers and students to provide information on career development and occupational choices. The daily bulletins, a job board, and the post-graduate student survey support the ongoing efforts to promote the program in both the school and community. The career center staff is well informed and sends interested students to the coordinator. Articles on STW are included in the parent newsletter. The chamber of commerce is kept up to date on activities.

Staff development. School administrators believe that the most effective staff development involves using district teachers to teach other staff members about STW. They plan to use this method of spreading the word about STW as much as possible. Consequently, additional funding is needed for staff time to meet and plan for STW. Counselors will be trained on the career infusion model this spring, and will take the training and information to share with their staff.

Business involvement. Business is involved in STW by providing job shadowing experiences for the eighth and ninth graders, providing worksite learning experiences for high school interns, and sitting on the STW advisory committee. The Issaquah Chamber of Commerce and STW have cosponsored business and education forums in which employers, school staff members, and students have met to exchange ideas and arrange job shadow experiences. Labor is not a major player in the community. However, staff members view labor involvement as one opportunity to explore.

The local performing arts center has provided worksite learning opportunities for students wishing to explore careers in theater. One of the students interviewed provided an eye-opening account of the career options she has explored while in high school. She works with the theater staff to help manage performance and will be a primary person involved in the summer production of the Children's Theater. Theater has been an expanding interest of hers since she started drama as a freshman, and in addition to attending the theater technician class at the high school, she receives first-hand knowledge of production and management, experiencing stress when performances are underway. She has been interning with the production manager, helping with coordination and stage management, and calling back actors after auditions. She believes the experience has made her a more well-rounded person, has helped her interact with the adult world, given her empathy for her teachers, developed her relationships with people, and taught her how to deal with different kinds of people. She is holding herself accountable for her career decisions.

In addition to participating in the worksite learning experience, this student also works as a legal assistant. She believes that some of these experiences make her classroom work redundant. She is a highly motivated student who feels that the worksite learning experience has broadened her educational experience in immeasurable ways and has taught her skills she would not have learned in the classroom.

Evaluation. Student portfolios and the follow-up graduate survey provide some evaluation and assessment data on an individual and school level. Employers do an evaluation of the job shadow experience and students write a reflection paper on what they learned about the occupation and the worksite.

Program Strengths

The primary strength of STW is that it opens a window to the "real world." The relationship between learning and the real world is key to the program. The School-to-Work program is inherently interesting and engaging for the students and helps them focus on the realities of work. The program helps students clarify what they want and don't want to do. It provides a forum for thinking about their lives and future beyond college. The work-based learning activities help make the curriculum more relevant for the students.

Students are provided with incredible opportunities and flexibility to demonstrate their responsibility and learn new skills. The Technology Information Project (TIP) class is the best example of students performing at their best. Students provide technical support to the school by setting up the LAN network and trouble shooting the network software and equipment. Most of them are self taught; the program has little structure. High school and middle school students participate in the program and receive one elective and occupational education credit toward graduation. During the study team observation of the TIP class, the teacher demonstrated how the LAN wiring was taking place. He explained how the various wings of the school had personalities based on the type of work each wing produced. For example, the counseling wing has a different personality from the business office and the teaching sections. Students were very focused during this presentation.

The TIP program demonstrates the power of role reversal when students are teaching teachers and teachers are the learners. Students learn to communicate and be patient and learn what it is like to be a teacher. Students with this level of responsibility become familiar with the world of work in a safe, learning environment.

The eighth grade graphics class exposes students to photography and desktop publishing, giving them an early introduction to technology. Students have their own photo lab. In addition, computer labs allow them to analyze data from surveys. These opportunities give them a head start toward the working world. Students in this class are entering and coding data from a communitywide survey on how leisure time is spent. Students have a hands-on opportunity to learn market research techniques before they enter high school. This experience helps them develop critical thinking skills and other SCANS skills in an applied

manner. Students are motivated to learn these methodologies when they can work in groups and process information together. Observations of the cooperative-learning classes showed students who were interested, motivated, focused, and communicating with each other in a well-disciplined manner.

The focus on humanities, multimedia, and technology education has engaged the students and broadened their educational experiences to help them after they graduate. Job shadowing is connected to the humanities class, providing a relationship between humanities and the world of work that is often missing in STW projects. In Issaquah the school staff has made every effort to use the values of the community to shape the structure of STW—a good match of educational planning and policy with community needs. Issaquah also demonstrates the advantages of an upper middle class community with resources to support student learning in ways that engage students' skills and interests.

Program Concerns

As Tech Prep continues to develop in Issaquah, and as student participation increases, it needs to be seen as an integral part of the School-to-Work effort. As students begin to identify themselves with a career path and see the link between Tech Prep programs and the pathways, this connection will strengthen. An area that needs to be expanded is the use of STW to provide work-based learning and articulation to postsecondary education through a Tech Prep program.

Issaquah School District List of Persons Interviewed

Margaret Davis, director of secondary education
Dave Edfelt, teacher, Issaquah High School
Dorothy Hay, career specialist, Issaquah High School
Connie Heldt, teacher, Issaquah Middle School
Sue Mackey, facilitator, The Mackey Group
Fern Miller, vocational director
Margaret Moore, assistant superintendent of curriculum
Lynn Moses, School-to-Work transition coordinator
Linda Patton, teacher, Spanish, Issaquah High School
Howard Sage, counselor, Issaquah High School
Jacque Wilk, student, Issaquah High School

Advisory council meeting with students, business and community representatives, teachers, and counselors

A focus group of five students from Issaquah High School

Study Team for Issaquah School District

Francie Lindner, NWREL
Marie Coon, Tech Prep coordinator, South Sattle Community College
Paul Parnell, Tech Prep consortia coordinator, Skagit Island Tech Prep

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Methow Valley School District

Site Report Author: Bruce Miller

Introduction

A two-member study team conducted a site visit to the Methow Valley on February 2, 3, and 4, 1995. Before the site visit, school personnel were contacted and arrangements made for observing and interviewing a cross section of people involved in the School-to-Work program. These included students, teachers, administrators, and community representatives. In addition, background information such as grants, reports, forms, and related documents were made available to the team. A list of individuals interviewed is included at the end of this site report.

Context

Liberty Bell High School is located between the towns of Twisp and Winthrop in the Methow Valley, a 50-mile long corridor in the north central Cascades. The nearest town one might consider a metropolitan area is Wenatchee, a two-hour drive from the school district offices in Winthrop. The school district is remote, rural, and has low population density. Residents can be organized into four distinct groups: (1) old timers whose livelihoods revolved around resource-dependent work such as mining, logging, and agriculture; (2) alternative life style people who have left urban areas for the rural, natural environment; (3) destination resort/tourism entrepreneurs; and (4) retirees. With the decline in the resource-dependent job sectors such as logging, mining, and agriculture, the valley's economy has shifted toward tourism and service-related industries. In addition, the cyclical nature of resource extraction and tourism create an uneven economic picture, with a boom/bust-like cycle. The school district provides the most steady employment and, with little teacher turnover, some of the highest paid work in the valley.

Origin and Focus of School-to-Work

The Methow School District and community were funded for a 21st Century Schools grant to restructure the educational program and bring the community in as an active partner through the creation of community-based instructional activities created and taught by residents. This grant reflects a comprehensive strategic plan within which new and future grants and activities have been integrated. School-to-Work funds have been used to extend the original reform effort begun in the district with their 21st Century Schools grant, and as such reflects statewide reform efforts.

The central component of STW activities is a program entitled Methow Valley as a Classroom (MVCR) in which more than 250 community-based learning experiences are offered to all students in grades 9 through 12. Since the STW activities are predominantly community-based, a high level of support exists among all constituent groups in the community, including educational organizations that serve the community such as the Tech Prep program at Wenatchee Valley Community College.

The interviewees, as well as the district evaluation data, were overwhelmingly positive, citing many success stories of how the program helped students choose career directions. However, it should be kept in mind that the 1994-95 STW grant had been reduced by nearly 50 percent from the original request ($104,000 to $51,000) and then that allocation was rescinded by approximately 45 percent. The district received $31,500 in state School-to-Work grants for 1993 through 1995. The final grant amount was used to fund the MVCR coordinator position for one year. MVCR is a primary vehicle for STW opportunities and experiences. When people responded to questions about STW, they tended to focus on MVCR.

Since the STW grant was used to extend the MVCR program, no new elements have been added. Under the original STW grant, the staff requested resources to provide time for them to plan collaboratively for the integration of academic and vocational activities. The existing STW program consists of the following:

- Methow Valley as a Classroom (MVCR)
- Diversified Occupations program (DO)
- Community Resource Training Program (CRT)
- Courses in computers and technology
- Personal Choices (a freshman course addressing applied communications such as personal decision making and career choices)
- Independent Living (a senior level course that addresses applied communications such as resume writing, job interviews, and income tax preparation.)
- Expanded offerings through a Tech Prep Consortium

In addition, the district has developed an applied mathematics course and is currently developing a trades strand for the new high school under construction. The trades strand will be offered as part of the MVCR.

Initially, Diversified Occupations and Community Resource Training were instituted to address the needs of special students and the non-college bound. Five years ago, the community and district became dissatisfied with how they were addressing the career interests of *all* students. Additionally, the school staff members felt they did not have the time or the staff necessary for collaboratively planning an integrated vocational and academic program. As a result, the community and school formed a partnership that resulted in a grant under the Schools for the 21st Century program at the Office of the Superintendent of Public Instruction; thus Methow Valley as a Classroom was born. MVCR created a common time for high school teachers to develop and plan programs to better meet student needs.

STW is viewed as part of a comprehensive plan to restructure and strengthen the educational program for all students. Given the isolated, rural nature of Methow Valley, a comprehensive community-based approach that builds on community strengths was viewed as the best approach. Evidence from interviews and observations supports this belief. For example, college bound as well as non-college bound students described their MVCR experiences as helping them to make decisions about the future. One girl who participated in a program on radio broadcasting is now at Washington State University in a program on communications and broadcasting. Moreover, as a result of her MVCR radio experiences, she is the youngest student broadcasting from the WSU radio station. Another student gave up on being a veterinarian after attending a MVCR experience with the local vet. She did not know she would feel so negative about seeing blood.

In general, STW centers around two goals: (1) to help students leave high school with real-world experiences and academic skills that will prepare them for the world of work, whether that means college, being an auto mechanic, or attending a trade school, and (2) to have students work with mentors and models in the community who can show how they live and work to accomplish important goals. Within these two goal areas, the 10 objectives of the MVCR (enumerated below) can be applied.

The district has charted a course toward making the entire educational enterprise serve the postsecondary needs of students. Currently, MVCR, Diversified Occupations, Community Resource Training, and the academic program provide the basic structure for STW. However, as noted in interviews with the superintendent, the high school principal, and the MVCR coordinator, much more needs to be accomplished.

Though the operating budget for the MVCR runs around $30,000 a year, this is an illusory figure as teacher planning time, community instructional time, transportation and related in-kind contributions would put the figure well beyond $30,000. To expand the program beyond its current operational status would require additional funding. The district has sought that funding through grants, but, as noted above, has received less than requested and has also had money originally allocated subsequently cut back.

However, without grant money that was received, the pace of development would be considerably slower, if not stalled. State STW grant funds allowed for the continuation of the MVCR coordinator which in turn allowed for staff to continue their early dismissal and collaborative planning time. This has led to the implementation of the block schedule, a key component, staff believe, in moving toward a more integrated vocational and academic program.

Based on the desired level of activity and funding written into the original STW and 21st Century grants, the district desires a continuation of multiple year funding with a phase-down after implementation of the next stages of program objectives. These include increasing the STW activities into the middle school, further develop STW connecting activities such as the integration of STW and academic programs, development of an

integrated trades program, integration of curriculum content, a senior project requirement using community-based committees, and the use of alternative assessment such as portfolio assessment of workplace competencies.

Program Components

Given the rural character of the Methow School District, the STW program does not have a traditionally articulated program of career, vocational, and academic courses designed to help students develop and move through a career path. A credit strand of vocational choices is provided within the academic program of the school. All students take a three-course vocational strand. The college prep program is the same as the vocational strand except for advanced college courses. In addition, a trades strand is currently under development in collaboration with the community, students, and teaching staff. The new program will be housed in the new high school building using community instructors from the MVCR, but with a tight integration of school staff and facilities. A new position is anticipated to support this emphasis on the trades.

Because the school is small, the number of electives is limited (non-academic electives are offered in business, home economics, shop, art and music) and that is why all students participate in MVCR. Taken together with the district's more traditional credit options, MVCR represents a truly unique and effective strategy to expand student experiences and opportunities for career exploration.

Methow Valley as a Classroom. The central component of STW is the Methow Valley as a Classroom (MVCR) program, in which students participate in community-based learning experiences. The experiences fall into four strands: (1) career/jobs skills; (2) leisure and recreational time activities; (3) informational classes; and (4) community service. Community instructors from local businesses, government agencies, and community groups, and individuals with expertise in areas of interest to the students teach the courses. MVCR was designed to extend the school curriculum and provide career exploration options using the resources available in this remote rural community.

Ten objectives provide a focus for the program:

- Build a relationship between school and community
- Introduce high school students to local job opportunities
- Acquaint high school students with local talents
- Involve high school students in leisure activities of the Methow Valley
- Involve high school students in service within the community
- Expose high school students to a full day experience
- Provide the opportunity for older people to get to know school teenagers
- Provide freshman with an orientation to the MVCR program
- Provide time for high school teachers to plan, reorganize, meet and evaluate
- Recognize the volunteer instructors with an evening of appreciation

The unique feature of MVCR is that all students participate in the community-based activities and courses, choosing from a published set of more than 200 course descriptions. Activities are non-credit and driven by the interests of the community and students. For example, a large number of students were interested in snowboarding, so a course was created in which those with snowboarding experience taught other students and community residents. Because MVCR focuses on all students, no stigma is associated with being vocational as opposed to college bound. MVCR addresses life-long learning needs of students by letting them experience a broad array of career and recreational opportunities.

The MVCR occurs for five weeks in the fall, six weeks in the winter, and two full days in the spring. The fall and winter activities are scheduled for every Wednesday afternoon, providing two-and-a half to three hours of community-based instruction. The spring activities are more in-depth experiences such as a Forest Service course in fire fighting that leads to a certificate in outdoor survival.

Students do not get paid for their involvement in MVCR, although contact with employers often leads to summer and/or full-time employment.

The greatest challenge facing the district is linking the MVCR experiences with academic classes and providing some form of academic credit for these experiences. To date, no credit linkages have been developed.

Three focus group interviews were held with approximately 10 students per group. Groups reflected a cross section of high performing college- and vocational-bound students to those at risk for failure. All students praised MVCR, saying that it gave them responsibility, addressed their interests, and provided for real-life, hands-on experiences. For example, a student who said she wanted to be a beautician was able to arrange a placement with a beautician in the community. Another student interested in being a physical therapist was placed with a chiropractor. However, students were critical of their academic courses for the same reasons they praised MVCR. They felt their courses were too textbook and lecture driven, with few opportunities for hands-on learning. Moreover, they felt they had little ownership of their school courses.

The MVCR program has been sustained for more than four years and appears well managed and supervised, winning unanimous support from parents, students, teachers, and every group interviewed. It has received national attention and been documented by the National Education Association. The program might be transferable to other rural communities similar to the Methow Valley, but care must be taken to ensure broad-based support of all constituent groups. Moreover, the unique mix of people in the valley and school, along with the infusion of capital from the 21st Century grant did much to contribute to the success of the program.

Interest in MVCR from outside the district has been high. The school staff members have made presentations on MVCR to state, regional, and national conferences. They have been

featured in journals, newsletters, and on national television. As a result, they have had many inquiries and visitors over the four years of implementation. This is all the more remarkable given that their community is isolated and rural.

Unfortunately, cutbacks in both the 21st Century Schools and STW grants have drastically reduced the pace of implementation. However, because the district's strategic plan calls for the implementation of block scheduling as the next step toward integrating MVCR and the academic program, this year's Student Learning Improvement Grant (SLIG) money was used to facilitate continued program development. But those interviewed felt SLIG resources were insufficient to compensate for the cutbacks in the other grant areas.

Other work-based experiences. In addition to MVCR, the district offers numerous other workplace opportunities: Diversified Occupations (DO), the Community Resource Training program (CRT), and employment training for qualified students through the Job Training and Partnership Act (JTPA) and the Department of Social and Health Services/Department of Vocational Rehabilitation (DSHS/DVR). JTPA is for students who qualify based on financial need. DVR is for students who have a handicap. All other programs are open to all students at the junior and senior level. CRT is also available for special needs students. Students can participate, within school hours, for up to 80 minutes (based on the new block schedule). Participation beyond this would come out of student's own time.

The special education teacher, the Diversified Occupations/Community Resource Training Program coordinator, and the MVCR coordinator collaborate closely. The special education teacher is a driving force in the process for special needs students.

DO and JTPA programs are wage paying. Pay is established by the employer. No student has received below a minimum wage.

CRT students have a specific skills/objective plan they must meet, and both CRT and DO students receive credit for the workplace experiences. The criteria for passing DO placements is established by the employer.

Integration of academic and vocational learning. More effort needs to be placed on linking work-based learning experiences (i.e., MVCR, CRT, and DO) with the academic and vocational courses. This is an area of need identified by everyone interviewed. The 1994-95 school year's block schedule is the first step toward creating a structure within which increased integration can begin to happen. Provided blocks of time (a four-period day of 80 minutes per period) that more closely reflects the real-world work context, students will be able to work on projects in a sustained manner as well as pursue community-based learning within the longer time blocks. The schedule also allows students increased opportunities for DO and CRT placements without disruption to their regular school schedule. The next stage is to increase the integration across academic disciplines. Lastly, efforts are being made to increase the integration with community-based learning. This appears to be the most challenging area.

Currently, few activities could be identified in which community-based learning experiences are used to enhance learning in the academic program. This was a major complaint of students during focus group interviews. For example, a community instructor who works with a group of students to develop a newsletter uses computers within the school. The mathematics teacher, who teaches a course in graphics, informally helped with computer use in developing the newsletter. However, English teachers who have been approached about the writing elements of the newsletter indicated they either did not have time or felt the newsletter was inappropriate for the content of their courses. When the community instructor was interviewed, she indicated that she would welcome help from English teachers because her expertise was primarily in using a page layout program for the newsletter. This is an example of a potentially powerful, but missed opportunity to integrate academic and community-based experiences.

Interestingly, one example of a clear integration between vocational and academic programs was found in radio broadcasting: the local radio station owner talked to school staff until he found someone who was willing to become actively involved. This resulted in an academic social studies course on communications being linked to a radio broadcasting application. It is this kind of integration between the vocational and academic that many people interviewed feel is lacking in the STW program. Teachers who were interviewed said they did not have the time or resources to move any faster toward such curriculum and community integration.

There is no formal processes for monitoring the application of academic skills in the work place settings. Job skill competencies are not monitored in any formal manner except in the CRT program. However, school staff members have indicated that work skill portfolios are to be developed and implemented in the future as part of their strategic plan. Currently, student folders for MVCR include much information useful for portfolio development.

Curriculum. The basic core curriculum has expanded to include STW activities, most notably MVCR. But other activities, presented below, also address postsecondary life skills. At the freshman level, CRT is often used to help place special needs students, although at years three and four, regular students may opt for CRT experiences.

Year 1:	Freshman orientation to MVCR
	Participation, on a limited basis, in MVCR
	Basic core academics
	Personal Choices
	Key boarding/computer technology
	Reading for life time-skills
	CRT
Year 2	Full participation in MVCR
	Computer technology

Basic core academics

Year 3:
MVCR
Basic core academics
Reading for life-time skills
CRT
DO

Year 4:
MVCR
Basic core academics
Reading for life-time skills
CRT
Independent living or Diversified Occupations

All community-based/worksite experiences follow a planned curriculum. Community volunteer instructors develop a written set of expectations for their course which is shared with each student. Some plans are elaborate and detailed as found in the Forest Service's fire fighting certificate program. However, most plans are less elaborate because instructors are experts in their fields, relying less on written plans and more on learning by doing. For example, a software engineer offered a course in programming that was embedded in an existing programming job. Students were shown commands and given an opportunity to practice. In time, according to the programmer, "Students quickly familiarized themselves with the commands I showed them, and even started using others that they noticed in the manual. By the end of the class, each student had written a program for editing data." Students were given the chance to experience working in an office as a programmer. The community volunteer teacher's observation of the students is instructive of the power of MVCR: "I was really impressed by these kids: they were eager to learn, they remembered things from one session to the next, and they were quick to pick up the manual to look for answers before asking for help."

The MVCR program incorporates a coordinator who works with students, teaching staff, the counselor and parents to ensure the best placement in MVCR, including the creation of new MVCR activities to meet emerging student needs. In addition, an advocacy period used for boosting reading skills and addressing MVCR curriculum needs within the existing academic schedule has been created within the block schedule. In many ways, it also serves as a home room for teachers to counsel students.

Guidance and career development. All students complete a graduation plan sheet that lays out their program of studies for the four years and includes vocational options provided within the school's academic program. However, it is MVCR which appears to provide students with the broadest exposure to vocational experiences that address their personal career and life interests. As freshman, students participate in an intensive orientation to MVCR. This includes team and class building activities followed by participation with older students in MVCR

The block schedule provides an opportunity for academic staff to address student interests and coordinate MVCR activities within the school day. For example, each MVCR instructor evaluates the students. The evaluations are shared with students during this period. Students also complete interest inventories and choose which MVCR experiences they desire.

With more than 250 community-based options to choose from, students are generally able to match their interests with the appropriate field experiences. Where their interests differ from those available, every effort is made to develop an option to address their interests. Based on interviews with students, the team found that MVCR works very well in meeting their interests and helping them discovery possible career options for the future. DO, CRT, and the courses Personal Choices and Independent Living also provide opportunities for career exploration and development. However, students identified MVCR as the single most powerful choice for career development offered by the school.

A half-time school counselor works closely with the MVCR coordinator in ensuring student needs and interests are addressed. Counselor training involves directly experiencing MVCR and working with the MVCR coordinator who, by all accounts, does an excellent job of matching student interests with community-based options. This is accomplished through first-hand knowledge, interviewing students, parents, and teachers, and reviewing data from MVCR evaluation documents. There are also separate directors for DO and CRT who work closely with the school counselor and the MVCR coordinator in addressing the needs of individual students.

During MVCR, students receive vocational and academic guidance through the mentor relationships established with community volunteer instructors. Upon completing a MVCR course, students receive a written evaluation by the instructor that addresses workplace skills such as punctuality, enthusiasm, politeness, and a place for open-ended comments. In reviewing the evaluations for the 1994-95 school year, it was apparent that instructors took evaluations seriously. Every form reviewed had unique responses, predominantly positive, but with some criticisms of student behavior. In addition, students are asked to evaluate the instructor and their own experiences in such areas as interest and motivation, what was learned, and ways to improve the course. The evaluation form also collects information on emerging student interests and recommendations for potential courses.

The MVCR coordinator keeps a portfolio-like folder on each student, documenting activities participated in, the instructor evaluations, and other appropriate placement information. A file is also kept by the counselor for each student that tracks their progress through the curriculum.

Retaining students in the STW program does not appear to be an issue given that all student participate in MVCR. However, a small number, less than 8 percent, choose study hall over MVCR. All adults interviewed felt this was a problem. In some cases, students wanted extra time to complete their assignments and used study hall for that purpose. However, many study hall students appeared to have no interest in MVCR.

Job placement services. Formal job placement processes do not appear to be needed as the opportunities created by MVCR provide a steady labor pool for employers. Students receive training and exposure to potential employers. In fact, nearly every student interviewed had summer employment because of MVCR. For example, students who become certified as firefighters through the Forest Services fire fighting class have a head start on employment in the Valley. Potential employers have the opportunity to try out employees before hiring. In short, MVCR and the way it is structured is its own job placement service. One parent, who is also a volunteer instructor, said, "Because of my son's involvement in MVCR, he received the training necessary to become fully employed by the Forest Service."

Promotion. The success of the STW program, especially the MVCR component, rests with the extensive promotion that occurs both formally and informally. Formally, STW is built into the school curriculum as specified in the graduation plan and through the scheduled MVCR activities. Freshman receive an extensive orientation to MVCR. A class period called advocacy has been built into the schedule to provide time for communicating about MVCR events and to counsel students. The students and staff complete numerous evaluations and accountability forms. Students plan and put on a communitywide appreciation night for community volunteers. Informally, a network of both students and adults spreads the good word about the program. Holding all of the program components together are the MVCR coordinator and the coordinators of the DO and CRT programs.

The CRT coordinator works to ensure placement and involvement of special needs students. The structure and nature of the MVCR program provides an ideal environment for promoting and addressing student interests and needs. In fact, MVCR appears to work best with those students who have trouble succeeding in a traditional academic setting. Focus group interviews suggest that MVCR may be a key reason why some students have stayed in school. As several students pointed out, "If it was not for MVCR, I would not be in school. We look forward to it as a relief from the regular school program."

Staff development. Since STW is an integrated element of the total school program and restructuring effort, all staff members participate in defining their needs for staff development. This is done through a consensus process that produced the school's original 21st Century Schools grant and its strategic plan. Embedded in the plan is the staff development agenda, which is designed to implement the school and community reform vision.

All staff members participate in staff development. The involvement of non-school individuals (i.e., community representatives) has varied depending on the appropriateness of the staff development event. For example, during visioning and strategic plan development, community residents actively participated. Community instructors also receive a brief orientation to MVCR as well as one-on-one support from the MVCR coordinator. As MVCR and other reform activities have become institutionalized, the need for broad-based involvement has been reduced. Currently, time created during early

dismissals for MVCR is used by school staff for program development and evaluation. A vocational advisory committee meets regularly to plan the new trades strand within the curriculum. This planning framework, under the guidance of the vocational director, provides for the development of new understandings and insights about STW needs of students and the community.

Since receiving the 21st Century grant in 1990, staff members have participated in summer institutes focusing on developing a collaborative work culture, a block schedule, and procedures and guidelines for STW activities. Ongoing staff development in instructional strategies and team building is intended to push implementation of the school's reform efforts. Topics have included cooperative learning, integrating curriculum, multiple intelligence, technology, reading, team building, communications skills, and consensus-building processes. Currently, the high school staff, according the principal, is narrowing its focus to implementing the block schedule.

Most staff development has been local, although regional and national elements have been incorporated as appropriate. For example, the national standards for mathematics developed by the National Association of Mathematics have been used to help inform mathematics reform efforts in the district. Consultants and organizations used in staff development include Central Washington University, consultants from OSPI (Peter Holly), Jan Mezich from the Cooperative Learning Network, the North-Central Washington ESD, and Dr. Edmond Ellis on curriculum accommodations for special needs students.

After four years of educational reform efforts under the 21st Century grant, the staff has developed the knowledge, expertise, and most important, the working relations to move their strategic plan forward without the heavy infusion of outside consultants necessary during early implementation.

Collaboration with business, industry, and labor. MVCR provides a comprehensive opportunity for community involvement in STW opportunities. No hard data have been compiled by the program to quantify the level of support provided by the community. However, given the large number of community instructors who participate in MVCR at any one time, the total in-kind contributions must be quite large. Active involvement is also sustained through the ongoing coordination of STW activities by the MVCR coordinator, and the coordinators of the DO and CRT programs. In addition, the superintendent has assumed the role of vocational director and is spearheading the development of the trades program in collaboration with the vocational advisory committee.

Labor has not been actively involved in STW because the rural isolation of the community limits the types of industry available. As a result, most businesses are so small they do not have organized labor affiliation. The one exception is the teacher's union, which has a master contract that helps guide working conditions and wages. The union has been an active partner in the educational reform efforts in the district.

Program Strengths

- Builds strong work ethic, student esteem, and confidence; develops real-work job skills and student responsibility
- Fills needs in the community, creates community involvement, and strengthens intergenerational relations
- Connects students to the real world and builds awareness of community strength
- Exposes students to diverse career and recreational opportunities, and provides choices that address their personal interests and career experiences
- Develops potential employment
- Provides students with mentors and supportive relations with adults other than teachers and parents
- Builds both student and community ownership of education

Program Concerns

- Risk factors such as liability and insurance
- Difficulty with adults, including teachers, learning to change the way they think about students and learning
- Lack of time and resources
- Middle school program not directly involved, causing scheduling and transportation difficulties
- Students lacking a meaningful voice in the academic program
- STW not apparent in the academic program
- A difficult transition to the new block schedule for teachers who are used to a seven period day (also the same for some students)

Methow Valley School District List of Persons Interviewed

Lynn Clark, counselor and teacher
Cary Featherston, radio station owner
Claudia Gordon, English teacher
Tom and Donna Leuschen, parents and community volunteer instructors and Forest Service employees
Brendon Maves, senior student
Theresa Miller, community volunteer instructor
Sandra Moody, MVCR coordinator
Gordon Reynaud, social studies teacher
Brent Stark, special education coordinator/teacher
Terry West, advanced mathematics teacher
Suellen White, superintendent, Methow Valley School District
Dennis Young, principal, Liberty Bell Jr/Sr. High School

Three students in radio station class
Three student focus groups

Study Team for Methow Valley School District

Bruce Miller, NWREL
Liz Stucker, teacher, Tonasket Elementary School

Sumner School District

Site Report Author: Tom Owens

Introduction

A four-person study team conducted a site visit to Sumner School District on February 6 and 7, 1995. Site visit activities included an orientation meeting; review of project documents; personal interviews with central and school administrators, counselors, teachers, parents, advisory council members, employers, and other community members; classroom observations of academic and technical classes; a focus group meeting with students and one with employers; and a debriefing with the School-to-Work staff. In addition to meeting NWREL's objectives for the School-to-Work evaluation, this site visit was also intended to meet the district's desire for feedback from employers and students regarding its student internship conducted last summer. A list of individuals interviewed is included at the end of this site report.

Context

The Sumner School District is located near Puyallup, Washington, and enrolls 7,066 students in grades K-12. The district has a single high school and two junior highs. The community is predominately middle income. A number of houses are for sale as a result of the last wave of Boeing Company layoffs. However, several other large companies such as Panasonic and the Port of Tacoma continue to employ a significant number of workers from the community. The number of people working in the service industries has increased. Plans are being laid for a large community development that would bring in an additional 25,000 or more people. The school district experiences a steady growth in student enrollment each year and the superintendent expects to open two more elementary schools and a junior high in the next five years.

The district received a total of $83,000 in state School-to-Work grants for 1993 to 1995. The grants provided funds for learning resources, guidance and counseling, and for teaching an integrated curriculum.

Origin and Focus of School-to-Work

The Sumner School District's School-to-Work program has grown out of the superintendent and board's desire to increase student expectations and to integrate the curriculum so that students can see relevance in what they are learning. In March 1993, the district arranged for a several day onsite evaluation visit by Gene Bottoms of the Southern Regional Educational Board and his team members, Carol Matarazzo, director of instruction from the Portland Public Schools, and Tom Owens, senior research associate from the Northwest Regional Educational Laboratory. This team made several recommendations. These included eliminating the general track; upgrading the academic, business, and technical programs of study; increasing the mathematics and science graduation requirements; adding some applied academics courses such as Principles of Technology; having students take greater responsibility for their own learning; and

developing a comprehensive guidance plan for grades 7 through 12. These recommendations have laid the foundation for the STW efforts.

The objectives of the district's School-to-Work program are three:

- To revise the curriculum to accomplish student outcomes that prepare students for the 13th year (work and/or postsecondary education)
- To develop and implement a comprehensive guidance plan for grades 7 through 12
- To establish learning partnerships with business, labor, the community, and parents that will prepare students in work maturity and workplace readiness

The district has developed a set of sub-objectives for each of the three major objectives. Other innovations within the district, such as the SLIG grant to explore block scheduling and implementation of curriculum integration and career pathways, are seen as supporting the objectives of School-to-Work.

The district had various elements of school-to-work in existence prior to the School-to-Work program. For example, there was good collaboration with some business and industry partners through the cooperative education programs and the Business Education Learning Links (BELL) program organized through the chamber of commerce. The BELL program provides a link for 75 business people with 150 classroom teachers. Operating primarily at the elementary grade levels, this program brings business speakers into the classrooms and enables students to get into the workplace for visits and projects.

Program Components

Management structure. The School-to-Work program is implemented under the direction of the director of applied and technology education. He is assisted by a half-time community service coordinator, a quarter-time volunteer service coordinator, a full-time career specialist who is responsible for the two junior high schools, and a half time counselor and career specialist at the high school.

Guiding the School-to-Work efforts is the School-to-Work Transition Council composed of 20 educators, 12 business representatives, six students, four community representatives, three government representatives, and a labor representative. It includes the Private Industry Council, the state Employment Security office, and the U.S. Department of Labor.

At the high school, management decisions are made by two groups—the leadership group and the Spartan Council. The leadership group, which decides curriculum issues, is composed of the principal, administrators, and department chairs. The Spartan Council is the site-based council and is composed of eight certified staff members, three classified staff members, four students, four parents, a community representative, and a PTA representative. They make school decisions in all areas other than curriculum.

Following are brief descriptions of (1) guidance and career development, (2) curriculum integration and restructuring, (3) student internships, and (4) facilities development. The Sumner District has other program components that may be considered part of School-to-Work, such as participation in the Communities for Families Consortium, which helps ensure services for all students and their families; however, space does not allow description of each of these.

Guidance and career development. The career development component focuses on developing and implementing a comprehensive guidance plan for students in grades 7 to 12. It includes the Business-Education Links to Learning (BELL) program operating at the elementary grades and higher; use of the new Washington Occupational Information System (WOIS), especially at the junior high level; learning styles assessment in the seventh grade; the eighth grade career research paper; student portfolios and an interest inventory in the ninth grade; and career days and the career pathways at the high school level.

The BELL program was developed by the Chamber of Commerce to link education and business. This year it involves 75 business people working with 150 classroom teachers. The business person generally visits two classrooms to talk with students about his or her business, but the link often goes beyond this to involve students in visiting the business or working on projects there. For example, one travel agency owner helped second grade students work in a team and use a computer to develop a simple travel brochure.

The student portfolio, which is being used for the first time this year by all ninth grade students, is called Get a Life and was developed by the American School Counselor Association under a grant from the National Occupational Information Coordinating Committee. The purpose of the portfolio is to help students collect information about themselves that they can use for making personal, educational, and career decisions that affect their entire lives. The attractive, 15-page, multicolor portfolio contains sections on self knowledge, life roles, educational development, and career exploration and planning. The portfolio will be completed by all entering ninth graders next year and this year's ninth graders will continue using it so that eventually all high school grade levels will be involved.

Career days have been organized by the counselors at both the junior and senior high levels. Seniors will be provided the opportunity to visit postsecondary training programs including the technical and community colleges, trade schools, and apprenticeship programs.

The career pathways cover five occupational clusters:

- Business and marketing,
- Communication and arts
- Industrial technology and engineering

- Science and natural resources
- Health and human services

The development of the pathways in Sumner was influenced by the Woodland, California, model, the Southern Regional Educational Board (SREB) model, and the Bethel, Washington model. Counselors visited these sites to gain more information about these pathways and to determine what features might fit for Sumner. The pathways will start at the 10th grade level. For each pathway a sample of technical and professional occupations has been identified and recommended two-year and four-year courses of study have been listed. However, a number of details remain to be worked out regarding the curriculum sequences for each pathway and the requirements for each pathway.

A focus group discussion was conducted with seven students at Sumner High School using a set of questions identified in advance. These students represented those in the Boeing student internship, the Sumner internship, and the work experience program at the high school. Students were told the purpose of the focus group, that individual responses would remain confidential, and that while it was expected that students' opinions about a particular issue would differ, the study team was interested in each student's response. Students introduced themselves and their work-based program. Their career interests included teaching, fire fighting, journalism, market research, personnel, and architectural engineering.

Students in the focus group did not perceive school activities as helping them with career decisions. Students remembered taking the CFAST test in 11th grade and using the WOIS in 10th grade. Several felt the WOIS results were not reliable or did not match with their real interests. Although they have an advisory period for 15 minutes a day in which they are supposed to be receiving career development, most said the homeroom was a waste of time.

Curriculum integration. The district is using the guidelines from the SREB *Making High Schools Work* as a basis for eliminating the general track and realigning the curriculum. The district has worked with the PRO-TEC and the South King County Tech-Prep Consortium in developing articulation agreements with Green River Community College, Pierce Community College, Clover Park Technical College, Bates Technical College, and Renton Technical College.

The district sent a multidisciplinary team of teachers to visit the SREB model for integrating academic and vocational education. This team brought back a number of ideas including the forming of a multidisciplinary research team with students from English, biology, ag-science, and graphic communications. These students worked on group research projects.

Other avenues for curriculum integration include the identification of essential learner core outcomes for all students in the district, selection and use of themes for each grade level, and the senior project. In order to help assure that all graduates are "collaborative

workers, community contributors, complex thinkers, effective communicators, quality producers, and self-directed learners," the School-to-Work Council identified eight core outcomes students will accomplish:

1. Demonstrate the ability to work collaboratively
2. Apply knowledge of factors which contribute to a healthy, balanced, and productive personal and work life
3. Show competence in personal management
4. Demonstrate the use of effective oral and written communication skills
5. Apply technical and academic skills to calculated risk-taking and the management of challenges in the workplace
6. Show the ability to set goals, solve problems, and make decisions through application of critical and creative thinking skills
7. Demonstrate the ability to work positively in socially and culturally diverse environments
8. Continually integrate information, ideas, experiences, and technology in adapting to situations throughout life

As part of the district's curriculum frameworks long-range plan, teachers have identified themes for each grade level from K to 12. For example, the 10th grade theme is community/interdependence, balance, and decisions, while the 12th grade theme is cultures, opportunities, and challenges. The themes are intended to serve as curriculum organizers when units of instruction are developed. The essential curriculum content for grades 7 through 12 is in development now and is scheduled for completion by June 1996. Some educators in the district are not familiar with the themes and it is not clear how they will be used in curriculum development or how they relate to the core outcomes or the School-to-Work concept.

The senior project started in 1993 and is now required of all seniors for graduation. All high school teachers will be released in the spring for part of a school day to read and evaluate the projects. Students are expected to take about 14 weeks to complete their project.

The district is making an interesting attempt to assure curriculum relevance. Posters are up in some of the high school classrooms asking (1) What are you learning? (2) Why are you learning it? and (3) How can you apply it? These are excellent questions for reflection by staff and students alike. Unfortunately, when the study team asked students about these issues, students were generally unable to describe why they had learned something or how

they could apply it. This should not suggest that the posters come down, but rather that teachers and students spend more time discussing these important questions.

Students in the focus group generally felt their academic teachers were not showing applications of their subjects to life, and several questioned whether their teachers could ever do this.

Student internships. Some Sumner high school students have participated in The Boeing Company's three-year summer manufacturing internship program and some are participating in the district's own internship program. This section will describe the district's internship program as it operated last summer under funding from the School-to-Work grant.

The community resource coordinator for the district presented Sumner High School staff with information about the one-month student summer internship for 10th and 11th graders. Teachers were asked to identify students with particular career interests who would benefit from a summer internship. Seventeen student applications were sent in and an evaluation team selected 10 students for the internships. The coordinator contacted businesses, and seven agreed to participate. The school district paid students' wages through funds received under a state grant. Employers were oriented and given a copy of the SCANS competencies. They were asked which competencies they would be developing with the intern and what specific activities would be done to lead to each SCANS area, such as "managing resources." Employers used a student evaluation form to rate the interns on the SCANS competencies on a five-point scale. The internship sites included a fire and rescue unit, a veterinary hospital, a chemistry lab, a marketing firm, and a local newspaper office.

Group interviews were held with the employers and separately with the students. Employers were positive about the internship experience and about the particular students with whom they worked. They felt students got a good taste of what the jobs involved, and learned about the work styles of the various settings. For example, the newspaper owner felt his intern learned how to work under pressure and how the staff communicate in the newsroom.

Students did a number of hands-on activities such as assisting in animal surgery, writing and editing newspaper articles, entering emergency reports on the computer, and talking with marketing clients. They also talked with their employers about some of the classes they had taken in school.

Although the employers felt the internship experiences were good for the students, most indicated they did not have the resources to pay for the interns themselves. Several suggested that industry associations or foundations might be willing to support student interns' pay.

The interns themselves also felt the internship experience had helped them. They learned about careers of interest and were able to apply what was learned. For example, the student working for the newspaper earned extra journalism credit for some of his internship experiences. The veterinary student learned the importance of sterilizing equipment and has now taken a biology course because of her new interest in the topic. The fire fighting intern has decided to attend the Seattle Firefighting Academy after graduation. He also applied the principles of physics to the water pressure in a hose. Another intern learned how to deal with angry customers and applied that during the summer. This student said that her high school classes had prepared her in communication skills, problem solving, and conflict resolution.

Students in the focus group mentioned above were asked to describe their workplace experiences and their reactions to them. Each student had some work experience related to his/her career interest area. Their experiences included copy editing, telephone contacting, working with angry customers, examining animal cells, and riding to emergencies. They were able to tie their experiences to subjects at school, such as keyboarding, business communications, marketing, biology, and mathematics applications.

Facilities development. Generally, the remodeling or building of new facilities would not be considered part of School-to-Work, but in Sumner the situation is different. Over three years the district has expended a total of $412,684 for capital outlay to upgrade technology education; an additional $167,121 has been set aside for new equipment in the technology education wing of the high school. The new technology wing was designed as an extension to the science wing to contribute to the integration of technical and academic education. It incorporates technology learning labs in manufacturing, ag-science, design, communications, and electronics. New integration activities are springing up from the collaboration across disciplines. For example, the agri-science and biology program has been working with the state Department of Ecology and members of industry on a water quality grant that would be used for agriculture.

Program Strengths

After reviewing its classroom observations and interview notes, the study team identified the following strengths in the Sumner School-to-Work program:

- The district has recognized the need for paid staff to coordinate School-to-Work activities and has used grant funds for to pay highly competent staff members. The technology education coordinator and community resource coordinator have appropriate backgrounds and demonstrated abilities to help lead the effort with the support of the superintendent and principal.

- The district has passed a $5 million building levy and has spent significant funds in remodeling and expanding Sumner High School. This has included a focus on computer networking and technology education that is critical for now and the future in a School-to-Work environment that needs to be the state of the art.

- The principal at Sumner High School has initiated comprehensive program data monitoring which carries out the SREB recommendation for "keeping score." Included in this tracking are test scores, student attendance, GPA, graduation rates, enrollments, percentage of students failing required courses, and number and dollar amounts of scholarships received by students each year since 1990.

- The district is initiating a K-12 student performance assessment system based on performance measures of the district's seven essential learning areas. This will help assure accountability for success in these seven areas.

- The technology education curriculum has been substantially improved as illustrated by the new manufacturing technology and automotive technology curriculum and by the physical facilities.

- The district has shown policy support of Tech Prep and is doing away with the general track, as was recommended in the SREB report.

- The superintendent, principal, and technology education director strongly support School-to-Work. The attitude among educators and community people the team interviewed toward School-to-Work seemed upbeat and supportive. As well, a high level of interest and cooperation exists in the business community, as exhibited by the BELL program, the Sumner internship, and other collaborative efforts.

Program Concerns

- While there are some excellent parts of a School-to-Work system in place and on the drawing board, there is lack of a clear understanding of how all the pieces can fit together. Thus, most of the people interviewed had only a fragmented view of School-to-Work. In addition, the School-to-Work program has not yet caused significant curriculum changes in the academic courses the team observed. Students still are generally unable to see or describe the relevance of the content of these courses despite the wall charts asking what they have learned, why it is important, and how they will use it.

- Most academic and secondary teachers seemed not to be involved in the BELL program and other community supported workplace efforts. At present, it seems the elementary teachers have taken the lead. As well, there appear to be time conflicts in the scheduling of the BELL meetings and the teacher inservice days. Other times need to be worked out to enable teachers to attend the BELL meetings.

- The Applied Mathematics 1 course which was designed as an introductory course for the ninth grade level is listed in the Sumner High School course guide as

available at the 10th, 11th, or 12th grade levels. It would seem to be too low a level course to be used at the 12th grade level.

- Plans are needed for continued funding of key elements of School-to-Work, including staff salaries, when the state grant funds stop.

- The comprehensive career guidance plan being developed ought to include a section on the role of counselors and the functions of the career center and counseling center.

- The cooperative education programs do not seem to be well organized. In the full School-to-Work plan they should be carefully developed in terms of purpose and function. They should then be expanded to provide opportunities for many more students.

- The percentage of students involved in internships is very low.

- The study team saw no involvement of labor in School-to-Work. Organized labor can be a strong force supporting or hindering School-to-Work, and more effort is needed in involving them now.

Sumner School District List of Persons Interviewed

Dan Anderson, junior high principal
Lowell Baird, Astro Travel owner
Tracie Bennett, manager, Western Round-up
Sandra Brook, transition specialist, special education
Ryan Bruce, student
Ken Charboneau, McConkey Company
Jewell Crowe, teacher
Jeff Davison, student
Richard Davison, Lake Tapps Veterinary
Patrick Duffy, attorney
Donald Eismann, superintendent
Sue Hall, principal
Joe Harrison, WSU Extension Center
Karen Hirschkorn, student
Sari Hirschkorn, manager, US Bank
Kelli Hoekstra, community resource coordinator
Karen Lockwood, paralegal
Ray Marostica, Bates Technical College
Ron Munkres, applied technology coordinator
Joyce Paulson, senior adult volunteer coordinator
Bryan Pearson, Central Pierce Fire District
George Pica, The Pierce County Herald
Greg Pile, teacher
Arlene Pokrandt, counselor
Dan Poole, Private Industry Council
Peg Scheidel, West One Bank
Neil Silver, student
Angela Swenson, student
Stacy Turner, student
Scott Wilson, Safeway manager
Patricia Woodburn, curriculum director
Joe Valek, U.S. Dept. of Labor

Study Team for Sumner School District

Tom Owens, NWREL
Jon Kellett, principal, Peninsula School District
Cindy Peters, teacher, Richland High School
Phillip Schneider, R&D safety assistant, Weyerhaueser Co.

Wenatchee School District

Site Report Author: Changhua Wang

Introduction

A three-member team conducted a site visit, on February 8 and 9, 1995, to Wenatchee School District No. 246, which has two high schools, three middle schools, and seven elementary schools with a total enrollment of 6,699 students. The team members spent most of their time at Wenatchee High School and made a two-hour visit to WestSide High School.

The activities of the two-day site visit included:

- Briefing meetings
- Classroom observations of nine applied academics and technical classes
- Interviews with school administrators, career guidance staff, and teachers
- Worksite visits
- Attending a School-to-Work committee meeting and staff appreciation lunch sponsored by parents
- Focus group meetings with parents, community members, and students
- Review of school documents

A list of individuals interviewed is included at the end of this site report.

Context

Located in North Central Washington, the district includes the city of Wenatchee and outlying areas bordering on the west shore of the Columbia River. A variety of agricultural, industrial, and commercial enterprises in this area provides the school district with a stable tax base, and voters have established a tradition of monetary support for their schools through special levies and bond issues. The backbone of the area's economy and the largest industry in the Wenatchee area is agriculture and related areas. Various fruit producers account for more than 70 percent of the monetary value of the area's total crop production. The apple is *king* in the Wenatchee Valley.

Both Wenatchee High School and WestSide High School are located in the city of Wenatchee. Wenatchee High is a comprehensive high school with an enrollment of approximately 1,600 students. Eighty-five percent of the students are White and the largest minority group in the school is Hispanic (around 12 percent). The school offers ESL programs for those whose first language is not English. WestSide High is an alternative school for those students who are not doing well in the regular school setting. WestSide High is about 10 minutes from Wenatchee High and is currently serving 280 students ranging from freshmen to seniors.

Origin and Focus of School-to-Work

Wenatchee School District received a total of $90,000 in state School-to-Work grants for 1993 to 1995 to develop and implement a program to connect high school education to the world of work. The program, now called the School-to-Work project is run by an advisory committee comprised of school administrators, teachers, parents, and business people in the community. The stated goals of the project are the following:

- Students progressing through Wenatchee School District will select a personal career path.
- Students will progress through a curriculum supporting their career path choice which builds connections between the school experience and their career path.
- Student career path planning will include experiences beyond high school such as job shadowing, mentoring, cooperative employment and post high school planning.
- Upon leaving Wenatchee School District students will have a career portfolio that demonstrates their abilities to potential employers or providers of advanced training.

To achieve these goals, the district has recognized the following components as essential to a successful School-to-Work program:

- Career exploration
- Integration of academic and vocational programs
- Planned program of work experiences
- Articulation to postsecondary education
- Career pathing
- Mentorship
- Developing and coordinating School-to-Work activities

Program Components

Career exploration. The team's interviews with students clearly suggest that career exploration helped them understand the relevance of school to work. Students liked the idea of planning a career while still in high school. Some seniors interviewed regretted that they did not have career exploration earlier. They wished they had started thinking about careers when they were in the middle school so that they would have had plenty of time to plan for high school.

At present, career exploration is done through interest and aptitude surveys, career pathing, job shadowing, job fairs, and infusion of work-related activities into the regular education activities.

Career pathing. In combination with other career interest inventory tools, the American College Testing (ACT) Discover computerized career exploration program is being piloted at Wenatchee High. All secondary staff members have gone through the program. The career center coordinators go into classes to give the inventories and discuss School-to-Work information. School counselors talk with all freshmen individually to help them understand the results they obtained from the Discover program and to lay out a four-year academic plan in alignment with their career interest.

Freshmen felt very positive about the individual planning. Counselors wished they could monitor students' progress in their plans in a systematic way. The career center has already started to create a portfolio for each student's academic accomplishments and work-related activities.

The Career Center, located in the library of Wenatchee High, is accessible to all students. This location changes the image of the center, which used to be considered to serve only non-university bound students or vocational students.

Job shadowing. Approximately 150 students from Wenatchee High participated in job shadowing. Twenty-five of them made contact with businesses themselves. Students who completed job shadowing were required to write a letter of thanks to the particular business. They were also required to write up their job-shadowing experiences and complete a self-evaluation.

The district is exploring the possibility of putting teachers in various businesses to update them on business and industry practices so that they can more effectively incorporate current information in their lessons.

Job fair. The job fair has now become an annual spring event for the school district. Community members are actively involved in sponsoring and organizing the job fair. Last year, more than 23 businesses were involved in the fair. Bob Siderius, a local lawyer, was the chief organizer of the event.

As part of the job fair, students were given training in resume writing and interview skills. The job fair provided opportunities for student-business contact. Students had real job-seeking experiences. Qualified students were hired by various businesses to work during the summer and some of them continued this employment after summer ended.

Infusion of work-related activities into the regular education programs. Career infusion activities have been built into regular education programs for all freshmen and sophomores. Teachers received inservice concerning how to relate their course content to the world of work.

The team observed nine classes at Wenatchee High School. Most classes provided real-life context whenever possible, hands-on experience, interdisciplinary projects, and a good balance between instructor demonstration and student performance. As well there was

respect between teachers and students, active interaction of students with teachers, and teamwork among students.

Although these classes may not be representative of all classes offered in the school, they represent the direction the school is heading. They reflected the three major goal areas set for all staff at Wenatchee High to work on: connections, School-to-Work, and school environment.

It is commonly agreed in this area that if the current school system needs to be restructured, it can not be the job of the school alone. There must be a stronger bond between schools and the community. Some school staff members interviewed envision classrooms of the future taking place in the community, where small groups of students will spend the day in a business and apply their mathematics, social studies, and language skills in the workplace.

Integration of academic and vocational programs. An example of integration of academic and vocational programs is the Connections project at Wenatchee High. At present, about 100 students participate in the project. The project was designed for "general track" freshmen of various levels of abilities by a team of four teachers of science, mathematics, keyboarding, and English. Teachers are working together to integrate different subjects. They use applied mathematics and applied communications curricula. Students in the project have the opportunity to gain some experience in a job site relating to their career interests and abilities. Preliminary evaluation results show that Connections roject students have higher GPAs and better attendance than other freshmen who are not involved in the Connections project.

The Connections project is potentially a good model showing how teachers of different disciplines can work together to design a work-related curriculum in such a way that students can see connections between different subjects.

The school district continues to encourage dialogue between vocational teachers and academic teachers. More applied mathematics classes are now taught by both math and technology teachers. English teachers and math teachers took applied academics training together. Applied Physics/Principles of Technology is taught in the science department. Several vocational courses are offered for both vocational and academic credits.

Planned program of work experience. Students of business education, marketing education, and diversified occupations are placed in various local businesses as part of cooperative education relating to the specific programs they are studying. The school district is considering extending this practice to students in other vocational areas. The school district contacted local auto industry personnel about the possibility of offering work experience to students who are interested in that area. The school district is going to make an effort to target special population students and help them gain structured work experience before graduating from high school. Such work experience will be extremely valuable for these students and increase their employability after high school.

Articulation to postsecondary education. The school district has been intensely involved with the North Central Washington Tech Prep Consortium. The district has developed articulation agreements with Wenatchee Valley College (WVC) for the Tree Fruit Research Program, health occupations, and sports medicine. Washington State University (WSU) is involved in the Tree Fruit articulation. Central Washington University (CWU) and WVC are involved with the school district in developing a program in professional education and working on the agreements in sports medicine and other medical-related areas. All articulation agreements are designed to have multiple exit points. At each level of the articulated programs, students learn marketable skills in the area they would like to pursue and have options to move on in their career preparation.

For example, the Tree Fruit Research Program is a hybrid program consisting of parts of a vocational program and a college preparatory program. Students in the program can choose to complete a sequence of high school and college courses leading to career preparation and an associate of applied science degree. They can also choose to follow the college transfer program that will lead to a bachelor of science degree at Washington State University.

At the associate of applied science level, students have career or education options such as orchard management, orchardist, horticulturist, sales, mid-management, advanced study in horticulture, agriculture education, agriculture engineering, agri-business, and farm management.

At the bachelor of science level, students have career or education options such as advanced horticulturist, research technician, sales/marketing, orchardist, orchard management, financial management, and graduate studies in agricultural, biological, and natural science.

Students are guided through the program starting from the ninth grade so that they can use their time wisely and effectively. However, students are not tracked only in this direction. Many courses they take at the high school are also the courses other students take. It is those electives courses they are encouraged to take that make their career direction more specific. The program works not only for vocational students but also academic students who plan to do advanced studies in this area.

Mentorship. Nothing has greater impact on a student than a meaningful interaction with an adult. Mentorship creates the opportunity for such interactions. Many students the team interviewed during the site visit indicated that they did not feel comfortable talking with adults. One business woman explained to us that one student spent a whole day with her doing job shadowing and did not ask a single question about the job she was doing. She was wondering whether it was the lack of self-confidence or discomfort with adults that made that student so quiet. However, in the second week of the job shadowing, the same student, better prepared than she was the first week, was praised as inquiring and

articulate. "One to one mentorship," one student suggested, "may help teenagers become more comfortable communicating with adults."

Currently, a limited number of students participate in mentorship, but the team found two mentorship programs which are exemplary: the Chelan County PUD (Public Utility Division) Mentorship Program and the Exploring Choices in Employment and Lifestyles (EXCEL) Mentorship Program at Westside High.

The PUD Mentorship Program was initiated by the Chelan County PUD. The program is designed to provide first-hand experience through interactions with mentors. The program is open to all sophomores and juniors from Wenatchee High School because they still have time to make changes in their high school program before they graduate. Students who participate in the program are given an overview and tour of the PUD operations. They are then assigned to a mentor in one of several departments. They spend at least 10 hours with mentors learning about their trade.

One student commented after completing the mentorship program: " At first I didn't have any idea what an engineer did. My sister asked me if I'd be driving a train. I'm glad I've been able to see what it's like and watch what they do. It would be difficult to go away to college and make a career decision and then find out after college that I hate what I'm doing." The PUD mentorship program is now open to all high schools in Chelan County. The PUD would like to take the idea to other businesses in this area to get them interested in starting a similar program.

EXCEL is an innovative program designed specifically for non-parenting teen girls attending Westside High School. The EXCEL program goals are the following:

- Postponing pregnancy
- Attending school regularly
- Earning credits on schedule
- Providing students with female mentors in the area of employment students are interested in leaning more about
- Providing students with female mentors in the area of problem solving, medicine, and life management

The program consists of three integral components:

- A weekly two-hour class which focuses on career opportunities for students
- A one-on-one mini-class each week with the instructor

- The mentor segment, which provides both job shadowing opportunities and self-esteem building skills for students. Mentors share their career experiences with students and help them plan for their future.

The instructor and mentors of the program have formed close, personal relationships with these young women. The instructor and mentors all believe in the idea which was expressed succinctly by Lisbeth Schore in her book, *Within Our Reach*.

> The most fundamental reason for the high rate of school-age pregnancy in the United States is that far too many youngsters reach adolescence without hopes or plans for a future that seems compelling enough to deter them from early parenthood.

This idea also applies to other groups of at-risk students. One school counselor told the team that when students find the relevance of the school to real life and have a goal they feel they are able to achieve, they will run on their own.

Coordination of School-to-Work transition. The school district has recently hired a School-to-Work coordinator. The coordinator is charged with the responsibility of coordinating all School-to-Work activities within the district. All counselors, teachers, parents, students, administrators, and parents the team interviewed felt the coordinator is in a very important position to provide leadership in bringing the current School-to-Work program into a higher level. Some of the team's interviewees suggested that this position should be permanent, and funded as part of school normal operations, rather than a grant-funded temporary position.

Program Strengths

"To implement School-to-Work activities, we do not have to change everything in our school," one teacher told us. "The pieces are there and the challenge is to piece everything together in a systemic way to affect every aspect of our current school system." The team found this statement true. In fact many school-to-work activities in the district existed before the funding of the School-to-Work grant, due to Tech Prep activities, but they can all be captured under the concept of School-to-Work transition.

The School-to-Work grant has certainly boosted some staff members' confidence in the direction they started to pursue years ago. The funding of School-to-Work makes it possible to expand the ideas of relevance of school and work to a larger audience of school staff. The funding also made it possible for school staff to learn new things outside the school, by visiting the Woodland High School program in California, attending Work Now and in the Future conferences and Cal Crow presentations, and doing related readings.

Wenatchee School District enjoys enormous community support in implementing various School-to-Work programs. Some businesses, such as the PUD, took initiative in helping students obtain a feeling for real workplaces and the career areas they are interested in. The Gold Card program is another example of how students' accomplishments in school are recognized in the community. About 70 businesses in greater Wenatchee Valley area joined in offering qualified students discount incentives at their businesses by issuing them a "Gold Card." Parents are also very appreciative of the efforts the school staff have made in serving their children. When the study team was at Wenatchee High School for the site visit, team members were invited to attend a staff appreciation lunch hosted by volunteer parents in honor of all school staff members.

In talking with parents and students, the team found most of them were aware of the phrase "School-to-Work" through local newspapers or other promotional materials. They supported the idea of relating school to work, but they were still not clear about what it means in terms of specific activities.

Program Concerns

Despite the accomplishments of the School-to-Work program, there are still things to be done to bring the current School-to-Work project to a new level.

- School-to-Work activities need to be expanded to all programs across the district. Currently, most School-to-Work activities are concentrated at Wenatchee High School.

- More teachers need to be involved in the inservice relating to School-to-Work. The district should make full use of the local media and other promotional methods to reach more students, teachers, and community members, particularly parents.

- No system is yet in place in the school district to monitor student progress in the School-to-Work program. To show whether the School-to-Work activities have any significant impact on students, a systematic process of evaluation needs to be planned and implemented early on.

Wenatchee School District List of Persons Interviewed

Jim Adamson, school counselor
Mr. and Mrs. Dewey Cannon, parents
Mrs. Patty Clift, parent
Nancy Doyel, Connections English teacher
Chet Harum, assistant principal
Bob Lam, general manager, TCI Cablevision of Washington
Mrs. Barbara Larkin, parent
Kristi Lewis, owner/educator, Little People's Day Care
Bob Long, Connections keyboarding teacher
Billy Lopushinsky - head, Special Service Department
Mrs. Beverly McCreary, parent
Karen Norlin, school board president
Shawn Regan, School-to-Work transition coordinator
Gloria Reichmann, Connections science teacher
Kendra Sanders, student
Melanie Shaw, general manager, Wenatchee Chamber of Commerce
Anne White, career center coordinator
Keith Williams, director, North Central Washington Museum
Joan Wright, principal

10 Wenatchee High School students

WestSide High School Visit

John Waldren, principal,
Nancy Self, school counselor
Jane Culp, Family Life teacher/EXCEL program director
Steve Wellman, commercial art teacher
Jerry Merrill, science teacher
Brian Baker, computer/mathematics teacher
Mary MacPhail, English teacher
Informal student interviews

Study Team for Wenatchee School District

Changhua Wang, NWREL
Jim Hendry, business representative and vice president, International Union of Operating Engineers, Spokane office
Scott Phillipi, Tech Prep consortia coordinator, Twin County Consortium

SYNTHESIS ACROSS THE SITES

The previous section presented a description of each of the separate site reports so as to give the reader a context for understanding what is occurring in various districts across the state. This chapter will describe some common elements across the 10 case study sites and identify some state-level recommendations. It will also discuss the views held of School-to-Work, look at management aspects, and then examine the six guiding principles underlying School-to-Work in Washington state:

1. Integration of vocational and academic learning
2. Multiple, flexible educational pathways based on the student's career or interest area
3. Vocational, personal, and academic guidance and counseling
4. Student essential learning requirements, methods of accurately measuring student performance, and goals for improved student learning
5. Partnerships with local employers, labor unions, and other community organizations
6. Active participation of educators

View of School-to-Work

If School-to-Work is to become a solid foundation for educational reform in Washington, it is important to see what people mean by the term and what they hope it will accomplish. As with any new concept in education the term means different things to different people. By identifying the six key features listed above, the state has done a good job helping to clarify what School-to-Work means. This was done while not trying to prescribe exactly how each district is to accomplish these features. The six key features should help guide the movement.

Among the strengths of School-to-Work is that some educational leaders interviewed see it as an opportunity to accomplish educational reform by showing students relevance for what they are learning and by making numerous connections—between schools and the community, between academic and vocational instruction, between K-12 and postsecondary education. They see STW as much broader than vocational education or any other program focused on only certain students. They see it as affecting *all* students.

Among the concerns regarding School-to-Work is that some academic teachers perceive it as only another name for vocational education and thus feel it does not involve them. Some teachers and parents were fearful that School-to-Work focuses education only on preparing students for a job and ignores the needs of college-bound students.

In looking to the future, educators interviewed noted a need to increase (1) opportunities for students to work in teams, (2) direct business involvement in the classroom, (3)hands-on learning experiences, (4) service learning, and (5) greater involvement of students in the actual planning and managing of their own learning opportunities.

Students expressed the need to have greater access to computers with modems to facilitate networking with the outside world. They indicated a desire for greater emphasis on technology use and team learning.

Management and Leadership

The success of any educational reform is largely dependent on the ability of leaders to articulate an exciting vision of what their district wants and to motivate people to work together to achieve that vision over the years. This is starting to be accomplished in many of the districts the evaluation teams visited.

Among the strengths observed were the ability of leaders to relate their School-to-Work goals to other school board priorities and to build on elements of School-to-Work that existed in the district prior to special funding from the state. For example, many districts already had some business-education partnerships in place through vocational education advisory groups or some local businesses that had already been involved in work-based learning activities. Other strengths in this area include the following:

- Embedding School-to-Work goals into the overall mission and goals of the district
- Integrating School-to-Work funds with other funds such as Tech Prep, Student Learning Improvement Grants, Carl Perkins, 21st Century Schools grants, and local funds. For example, Goldendale combined a levy line item for a career pathway specialist with vocational funds paying for the remainder of the salary
- Getting many academic as well as occupational teachers to buy into School-to-Work and view it as their own, through site-based councils and other vehicles
- Identifying staff development needs and providing teachers and counselors with the opportunities to attend conferences and training sessions, and to participate in internship experiences in the local businesses to see, first hand, what knowledge and skills are needed in the workplace and how they might develop these in their own classes
- Hiring highly competent people to coordinate School-to-Work activities in their districts

While the study teams observed many example of effective leadership, they also identified some areas where future improvements could be made. Among their concerns were the following:

- The failure in most districts to communicate to staff, students, parents, and the community the integrated and systemic nature of School-to-Work. Many people still viewed School-to-Work as a program for the non-college bound student or as only a career fair or other individual activity rather than as a framework that should guide the education of all students.

- The inability to tie School-to-Work with Tech Prep and with post-secondary options.

- Inattention to sustaining School-to-Work beyond reliance on special state funds. While districts were using School-to-Work funds to hire program coordinators and others, the teams heard almost no discussion about how these positions would be funded in the future out of local dollars. As a result, some School-to-Work coordinators and others were already starting to worry about how permanent their positions or the whole School-to-Work effort might be.

- The lack of articulation between the high schools and elementary and middle schools in integrating a comprehensive and systemic School-to-Work effort. Another potential issue is districtwide consensus when individual site councils make autonomous decisions.

- The lack of attention to a comprehensive evaluation of School-to-Work. While some teachers may be gathering data on student performance in their individual classes there seems to be little systematic sharing across classes or schools. In general, students seem to be absent in the planning, implementation, and evaluation of the School-to-Work programs.

The Six School-to-Work Principles

This section treats in detail Washington state's six guiding principles of School-to-Work listed at the beginning of this chapter. The meaning and importance of each principle is discussed, and common strengths and concerns regarding each are identified. Where appropriate the discussion includes some promising practices that may be considered as districts move to strengthen their School-to-Work programs.

1. Integration of Vocational and Academic Learning

An essential element in the School-to-Work legislation is the integration of academic and vocational learning. This integration is important to ensure that students see relevance to what they learn in school, can apply the academic knowledge they learn, and can integrate theory and practice in their vocational technical training. Successful integration requires vocational and academic teachers to work together in new ways and to share their expertise.

Strengths. In some districts such as Bethel, School-to-Work is so well integrated into the district's goals through their essential learning skills that School-to-Work has become synonymous with school reform.

While teachers in some schools are fully underway in implementing an integrated curriculum, some in other schools are supporting the idea, but admitting that they don't know how to implement it and saying they need training.

Some districts are working with curriculum committees to develop a coordinated set of themes to be addressed by all teachers at a particular grade level and are working to develop senior projects that integrate knowledge and skills that students have learned in school and in the community.

In some schools where building or remodeling has recently occurred, such as in Sumner, the science and applied technology classrooms are located adjacent to each other in the new wing of the high school, thus breaking down the traditional separation of academic and vocational education wings.

Signs in several districts ask students "What are you learning? Why are you learning it?" and "How can you apply it?" These signs are an excellent way of helping students and staff members become aware of the need to show applications of what is being taught.

Concerns. Students interviewed indicated that many academic teachers are still not showing the relationship between what they teach and other subjects or the real world applications of what is being taught.

Teachers are expressing concern that they lack time to plan together or to work together in actually teaching integrated curricula. Without common planning and instructional time the integration is not likely to occur.

Some academic teachers feel that time devoted to integrating academic and vocational learning will water down their curricula and short-change college-bound students.

Both academic and vocational teachers have some concern that by integrating their curricula they may be lessening the enrollments for their classes and thus risking their future employment.

Promising Practices. Development of new courses and integrated program offerings in each career pathway is now underway in many high schools in Washington. For example, Spanaway Lake High School has contracted with a registered nurse from the Pierce County Health Department and features a set of core and sub-core classes taught by a team of teachers from the business, home and family life, agriculture, biology and social studies departments. Courses address topics ranging from advanced anatomy, nutrition, and exercise physiology to advanced medical/dental terminology, medical transcription,

and medical office assistant competencies. In spring 1995 students will have the opportunity for 90 hours of clinical experience.

At Bethel High School, students can enroll in a Human and Health Service Academy in a four period block of integrated instruction that gives them credit in communication arts, careers, physical education, world history, biology, and health. In grade 11, students enroll in an integrated three-period block that includes communication arts, anatomy and physiology, and personal relations. As seniors, students take a two-period integrated block along with advanced science, psychology, and other electives as well as their cooperative work experience in a human and health service organization and their senior project.

In Central Valley, an example of an interdisciplinary learning opportunity was described by students and an art teacher who, with the drafting and design technology teacher, are designing and constructing a gazebo on campus. Over a period of several months, the student team has spent countless hours researching various elements that must be considered and consulting experts. Each of the team members, including one who is a special education student, has made equally valuable contributions ranging from placement (line of sight from the office area for security reasons; access to bus lanes and parking) computer-assisted design and layout of the plot plans (drawing gradations of the slope), to prevailing weather patterns (wind and sun impact), and decisions on easy maintenance plants that would be appropriate for the site (landscape architect and school custodians). During the week of the study team's visit, students were working with a mathematics teacher to double check computations on the yards of concrete that would be required to construct the slab and were determining the exact shape of the pillars. Future classes will tackle the pillars and roof.

The project has already won plaudits from a local architecture firm for its creative juxtaposition to the rather linear and boxy school buildings it will embellish. It was obvious from their discussion that the students were in charge of this project, with the teachers only providing behind-the-scenes advice and technical support. The art teacher, who has always tried to use field trips as part of her curriculum, says the SCOPE emphasis on integrated learning has made her a better teacher after 26 years of experience in the field. "My responsibility is to make my courses interesting and these kinds of projects accomplish that purpose," she said.

The gazebo project is just one example of many that have enabled students to make connections between various subject areas in the school and real-life community needs and career possibilities.

2. Multiple, Flexible Educational Pathways Based on the Student's Career or Interest Area

Rather than prepare students at the high school level for specific occupations, School-to-Work is geared to giving them the broader skills needed in a cluster of occupations. This is often referred to as educational pathways and is often modeled on the pathways developed in Woodland, California. Washington schools tend to divide the occupations into four to

six occupational clusters. Schools provide students with a core curriculum and suggested electives considered especially appropriate for the chosen pathway. Although students generally select a pathway in ninth grade, they are free to make changes along the way.

Strengths. In Clark County, the Career Pathways have been agreed upon among all high schools in the county.

Students in several districts, such as Goldendale, are starting to select core and elective courses in relation to a career pathway of interest instead of selecting courses randomly or based on the ones they hear are easiest or their friends are taking. These decisions are often made at the ninth grade and are being reviewed each year thereafter.

Concerns. Presently, many districts are creating their career pathways independently, not collaborating much with other districts or with community colleges.

Some educators seem unsure of how the clusters were formed or unsure about the common characteristics and competencies expected of people within each broad cluster category. Some occupations are not easily located in a single pathway.

Some educators are concerned that students are being forced to make premature career decisions at an early age and that they may be locked into a track they later wish to change. Clearer communications on these points is needed.

Rural areas have difficulty offering some pathway choices because of the limited jobs available for exploration in their local communities.

Promising Practices. In Central Valley High School, six pathways are used throughout the school year as an organizer for teaching and learning activities. Teachers are loosely assigned to each pathway, each chaired by a team leader who is given release time for coordination activities and for information sharing with the junior high schools.

Central Valley built its six career paths around the following domains:

- Business marketing and management
- Business communications and operations
- Technology in society
- Engineering, science, and medical services
- Creative and applied arts
- Social, health, and personal services

This particular arrangement of career paths is based on the American College Testing (ACT) Discover Program, an assessment system that links career interests and occupational attributes (e.g. working with people, data and things). Using input from annual surveys, students and teachers alike learn to recognize the factors that characterize each pathway and the familiar "career wheel" poster developed by Discover is part of all

student registration materials and SCOPE handouts. The same World of Work poster is prominently displayed in all classrooms as well, and in at least one case is painted directly on the wall as an attractive graphic. All students participate in at least one large-group gathering annually by career pathway.

Thanks to the Discover program, each faculty member receives a printout showing which career pathway each student in their classes has selected. While some teachers said this is a potentially useful tool, they admitted they seldom have time to think of what this means for each individual because of large class loads. However, several said these lists serve as reminders that there are six different perspectives for each lesson sitting in their classroom at any one time; their challenge is to think of how to approach each assignment with those applications in mind (which, interestingly enough, is the way the Applied Mathematics, Applied Communication, and Applications in Chemistry/Biology curricula have been designed).

3. Vocational, Personal, and Academic Guidance And Counseling

Counseling and career development are critical for students in School-to-Work to enable them to see from year to year the courses they need to take to fit their career and educational plans. Without quality counseling, many students wander through high school without focus and direction. Trained staff members and adequate resources are important to help them.

Strengths. Some districts are using part of their School-to-Work funds to hire and train career development staff members to operate career centers, maintain student portfolios, and provide to students a clearinghouse of information on educational and career opportunities.

Some schools are locating their counseling offices and career development centers in a neutral space in the schools to avoid the misperception that career development is only for vocational education students or those not going on to college. Educators are starting to recognize that career development is important for all students including the college bound, many of whom will need jobs while they are in college.

Many districts have recognized the need for vocational counseling and career development and are providing the necessary staff development for counselors and career development specialists.

Career development activities at the elementary and middle school level are growing and, in some cases, are being well coordinated with the activities at the high school level. For instance, in Clark County, middle school students complete a career interest inventory prior to forecasting for high school. All eighth-graders are expected to meet the essential learning goals identified by the consortium and have their career portfolios completed prior to entering high school. The portfolios are transferred and used during their high school years. Clark County's high school career centers are staffed by career guidance specialists who provide career awareness and assessment services to students. In addition

to serving high school students, these specialists also work with school staff at the high schools and middle schools to provided career awareness and assessment services to students.

Others districts such as Sumner are thinking beyond 12th grade and are talking about career and educational decisions affecting the 13th year. Getting students at an early grade level to start thinking beyond 12th grade is important in breaking down the stereotype of some students that education ends at grade 12.

In most of the districts visited those interviewed discussed the career portfolios they were having students prepare to record their career and educational experiences and preferences. Some of these portfolios were attractively laid out and were being used by all students at one or more grade levels. Often they were being completed as part of a careers course in which there was adequate time for the teacher to explain the functions of the portfolios and procedures for completing them.

In the Bethel district and several others, students are given guides that suggest what to watch for as they go on field trips rather than merely going out to observe unprepared. They are also asked to evaluate their experiences after returning from a field trip.

There is evidence that the career development classes supported by School-to-Work grant money in areas like Clark County are having a significant impact on the participating students. For example, students in the Clark County focus group had a strong sense of what career paths they would like to pursue, basing their decisions on career profiles developed in the career development class.

Concerns. Some high school counselors say they believe in the importance of career counseling but have such a high student-counselor ratio that they lack time to meet with students to discuss their careers.

The study team found examples of students who had completed a portfolio in ninth grade but had not reviewed or revised it in a year or more. If these portfolios are to be effective tools for career development they need to be reviewed and updated each year. Student career portfolios should be monitored over time. They should be effective for multiple uses— for educational planning as well as helping students obtain employment. Criteria should be developed regarding what entries should or should not be included in the portfolios if they are to avoid becoming a meaningless "collection bin."

Despite some interesting experiences students were having in the workplace, integration between what was being learned there and what was being taught in the high schools seems minimal. Likewise, students were often unaware of how these workplace experiences relate to their future career plans.

Holding only counselors responsible for career development weakens teacher involvement. Since the counselor time available to each student is limited, teachers in all subject areas need to include a career focus in their teaching.

Promising Practices. At Camas High School, the career counselor and teachers now work as a team to open all options to students. Teachers now use the career center as an essential part of their classes. Students are assigned occupational topics to research, and teachers research real world examples they can use to illustrate the informational content of their courses.

Before the STW program, teachers and counselors appeared to be at cross purposes and not on the same student advocacy team. While teachers were focusing on alternatives to postsecondary education, counselors were directing all students toward college. With grant money, Camas was able to institute a career center and hire a paraprofessional to assist students in exploring a variety of postgraduation options. The career center also assists students in exploring pregraduation opportunities such as internships, senior project worksites, and the Running Start program at Clark College.

Teachers are becoming advisors for their students. Each teacher has a group of 20 students that he or she advises all through their years at the school. These advisor/advisee groups meet for 10 minutes every morning.

4. Student Essential Learning Requirements, Methods of Accurately Measuring Student Performance, and Goals for Improved Student Learning

If School-to-Work is to become a platform for school reform in Washington it is important that its goals and objectives link up with the state goals enacted in HB 1209 and with Goals 2000. A deliberate plan is needed to tie the district's Essential Learning Outcomes to the School-to-Work activities. Student assessment must also be integrated so as to include understandable performance standards and authentic assessment measures.

Strengths. Some districts have their school board goals, which include the goals of School-to-Work, prominently displayed so that educators, students, and the public alike can see what is expected.

The principal at Sumner High School has started collecting and sharing annual student performance data from the past several years so that educators can see what is expected and the progress that may have been made in areas such as student attendance, disciplinary referrals and the graduation rate.

In Methow Valley, educators collect evaluation feedback from community persons about the performance of students at their sites and students themselves are involved in evaluating the community supervisors.

At Sumner High School all teachers will be involved this spring in taking time to evaluate students' senior projects. Common rubrics are being developed for this assessment.

Concerns. Additional resources and staff time are needed to manage the large number of student portfolios. Also, more resources are needed for computers and software for the development of electronic portfolios.

In some schools using grade-level themes, there seems to be little implementation to date and no systematic tie between the objectives to be learned in the themes, the essential learning objectives, or the expected outcomes of the senior projects.

5. Partnerships with Local Employers, Labor Unions, and Other Community Organizations

A critical element of School-to-Work is the work-based learning component. Work-based learning cannot take place without significant participation of business, labor, and other community groups. These groups are important in identifying the basic competencies that students should have for successful employment, in providing workplace experiences in which students can gain or reinforce these skills as well as to explore their career interests, and in helping to motivate students to remain in school and apply what they are learning there.

Employers are also important for school-based learning and the connecting activities required under School-to-Work. They can serve as classroom speakers, participate in career fairs, and help advise teachers about the relevance of both their vocational and academic curricula.

Strengths. Some large companies in Washington, such as The Boeing Company, have been active partners in education for more than five years by contributing to the support of applied academics, developing summer student and educator internships, and encouraging collaboration of community colleges and other businesses.

In Sumner, the chamber of commerce has helped coordinate job-shadowing experiences for more than 100 elementary, middle, and senior high students each year. In Issaquah, the chamber of commerce has cosponsored business and education forums in which employers, school staff members, and students meet to exchange ideas and arrange job shadows.

Many districts are realizing the importance of hiring a full-time staff person to help coordinate student work-based experiences with businesses. Most communities are insisting that educator contacts with business need to be closely coordinated. In Clark County schools, business collaboration has resulted in business paying some of the School-to-Work coordinator costs. This should help assure the sustainability of School-to-Work beyond reliance on state School-to-Work funding.

Business and community collaboration is occurring not only in urban but in rural areas. As excellent example of widespread student community-based learning in rural communities is the Methow Valley program described below as a promising practice.

Concerns. While some large companies are active partners with education, small and medium-size firms are participating much less. If School-to-Work is going to "go to scale" and affect *all* students, a much wider base of cooperating employers will be needed.

Organized labor has been notably absent from active participation in School-to-Work in most communities. While an individual labor member may be involved with a particular program or student there is little or no widespread organized involvement.

Many employers may be comfortable telling students about their jobs or showing them around their business, but most are not knowledgeable about how to involve students in a sequenced set of learning activities that will give students career knowledge or an understanding of the industry.

A challenge facing many districts is how to work with a broader segment of the business community that may not have worked with education in the past. Some businesses prefer working with college students because they are better trained, more mature, and create fewer liability issues than high school students.

Promising Practices. Community members are participating in School-to-Work in a variety of ways that involve school based as well as work based learning. For example in Grand Coulee Dam a site council of parents and community members provides the STW team with valuable insights for continual program development. This council is also very active in participating in the senior oral boards. Every senior makes a presentation of his or her PREP portfolio (important projects, grades, resumes, and other items.) before five to six community members. The board in turn can ask questions and the student must receive a "pass" as one of the graduation requirements. A number of council members have requested that they be given extra time to review the student's PREP portfolio before the 25 minute oral examination. This is one of those "best practices" mentioned repeatedly by teachers, students, parents, and community members.

Businesses are starting to establish locations right in the high schools to foster student learning. For example, The Grand Coulee Dam Federal Credit Union has installed one of their branches at the high school. The high school branch has a board of directors comprised of students and run by students. The board members, who were voted in by students, are responsible for making all policy decisions (subject only veto by the home office Board of Directors and federal regulators). Although students do not receive pay for their efforts, the skills they receive make them prime candidates for paid positions at the main credit union branch during summer and vacation periods. Other high schools served by the GCDFCU have asked to have branches in their school if this experiment works out. The credit union estimates that the cost of installing the branch in the school is approximately $7,000 (the equipment was donated by the manufacturer). The student employees were still being trained during the site visit, with March 17th set for the grand opening. The Home and Family Life classes will be catering the credit union's open house.

In Methow Valley, a rural area, the central component of the STW activities is a program entitled, Methow Valley as a Classroom (MVCR) in which more than 250 community-based learning experiences are offered to all students in grades 9 through 12.

Five years ago, the community and district became dissatisfied with how they were addressing the career interests of *all* students. Additionally, the school staff felt they did not have the time nor the staff necessary for collaboratively planning an integrated vocational and academic program. As a result, the community and school formed a partnership that resulted in a grant under the 21st Century Schools program, and thus Methow Valley as a Classroom was born.

Each Wednesday, students participate in community-based learning experiences divided into four strands: (1) career/jobs skills; (2) leisure and recreational time activities; (3) informational classes; and (4) community service. Community instructors from local businesses, government agencies, and community groups, and individuals with expertise in areas of interest to the students teach the courses. MVCR was designed to extend the school curriculum and provide career explorations options using the resources available in this remote rural community.

Parents, businesses, and community people play a central role as the instructors in MVCR, and as mentors and models to the students they teach. To teach a course, they have to write up their program goals and expectations which are shared with students. Instructors are also evaluated by students and complete evaluations on each student. The evaluations are kept in a file for each student that serves as a record of interest and progress through MVCR.

MVCR provides a comprehensive opportunity for community involvement in STW opportunities. No hard data has been compiled by the program to quantify the level of support provided by the community. However, given the large number of community instructors who participate in MVCR at any one time, the amount of in-kind contributions must be quite large.

More than 200 MVCR placements occurred during the 1993-94 school year in more than 50 different activities across the four program strands: community service (e.g., teaching assistance), career/jobs (e.g., auto repair, construction, etc.), recreation (e.g., outdoor recreation, biking/trail, etc.), and information (e.g., SAT).

The MVCR program has been sustained for more than four years and appears well managed and supervised, winning unanimous support from parents, students, teachers, and every group interviewed. It has received national attention and been documented by the National Education Association. The program might be transferable to other rural communities similar to the Methow Valley, but care must be taken to ensure the broad-based support of all constituent groups. Moreover, the unique mix of people in the valley

and school along with the infusion of capital from the 21st Century Schools grant did much to contribute to the success of the program.

6. Active Participation of Educators

If School-to-Work is to be a successful total school reform effort and not just a new name for vocational education, it is critical that administrators, counselors, academic teachers, and other school staff members understand what is intended and learn how they can participate. This requires the participation of educators from the elementary school level through postsecondary. It requires teachers who are willing and knowledgeable in working together and in helping students see the relevance for what is being learned.

Strengths. Through site based councils and other forms of involvement schools are starting to see teachers who are taking ownership of School-to-Work programs and activities. For example, in Grand Coulee, changes in the high school are teacher driven and district approved.

Some teachers have been vocal in identifying their training needs related to School-to-Work and have participated in such training when it is offered. Without this training many would not know how to go about integrating academic and vocational learning, working with business and community leaders, or showing students how to apply what they are learning. Educator internships, while affecting only a small percentage of teachers so far, have proven quite effective in motivating teachers to use community resources to enhance their teaching.

In Camas and other districts there is a close tie between the teachers, the School-to-Work coordinator, and the administrators. Coordination of several funding sources in grant applications there is strengthening ownership of the School-to-Work program and decreasing turfism among the teachers.

The Connections program at Wenatchee allows four teachers to co-plan curriculum with a pilot group of ninth graders.

School-to-Work reinforced the 21st Century Schools program by giving teachers a higher profile in the community and helped them develop benchmarks, tasks, and outcomes for their students.

Concerns. Some academic teachers still view School-to-Work as a threat to their academic discipline or at least as something of concern only to vocational education teachers. Similarly, some vocational teachers see School-to-Work as requiring them to teach academic concepts and limiting student time for mastering specific occupational skills.

Promising Practices. In some districts such as Camas, the administration has obtained teacher buy-in by stating that no major curriculum restructuring would occur without 80 percent of the teachers being in favor of the changes. As a result, 98 percent of the

teachers voted to apply for the School-to-Work grant.

RECOMMENDATIONS

The previous chapters described the methodology and findings from the site case studies and analyze-of some common strengths and concerns noted across sites. This chapter identifies some recommendations for state-level consideration by the legislature and educational leadership.

1. Broaden the View

While this case study report contains some excellent examples of individual School-to-Work practices there is still the perception by many that School-to-Work is just another program even if somewhat broader than vocational education. There is need for a systemic look at what can be achieved by a comprehensive connection—between academic and vocational learning, between school-based and work-based learning, and between educators K-14 working in partnership with the full community to help young people see applications for what they are learning, experience meaningful relationships with adults, and consider directions for their future.

2. Provide Continued Training for Educators

One of the most critical ingredients for continued success in School-to-Work is staff development. Without Perkins funds, Student Learning Improvement Grants, 21st Century Schools investments, and School-to-Work demonstration awards, none of these pilot districts would be as far along as they are. Now that districts have established examples of what effective integration of academic and vocational learning can involve it is time to broaden the knowledge base to reach a much larger number of teachers from the elementary grades through the postsecondary level.

Districts need to reassess the training needs of their staff to determine the content and methodology best suited to broadening the implementation of School-to-Work, reaching many more teachers and students. State funds are still needed to implement a wide array of training opportunities that include hands-on workshops perhaps taught by experienced teachers who have been successful with integrated learning, team teaching, and use of the community as a resource, as well as individual or small group educator internships in business and industry.

Teacher education institutions also need to be part of this new learning community as they work to provide future teachers with career guidance and community-based learning experiences.

3. Provide Training for Community Partners

Since School-to-Work depends on both school-based learning and work-based learning, it is essential that extensive training efforts be aimed at the community partners—business, industry, labor, and other community groups. While there have been excellent efforts to date to explain the concept of School-to-Work to these groups, many have not yet gotten on board.

Additional education is needed to show these potential partners what roles they can play, how they can perform, and how they will benefit as companies and individuals. The effort being made statewide in manufacturing through the Manufacturing Technology Advisory Group (MTAG) is an excellent model for use in other fields. MTAG is using educators and leading companies such as The Boeing Company to motivate medium and small businesses and inform them of what they can do to assist educators develop the type of workforce that will continue to keep Washington strong and economically competitive. A guidebook such as MTAG is developing to illustrate the various roles small and medium size firms can play in working with education might be useful to motivate this broader level of participation if School-to-Work is to be a program for *all* students and not just another program for a select few.

More attention also needs to be placed on preparing worksite supervisors/mentors for their critical role in the education/training process. These individuals are not only showing students how to perform narrow technical skills but how they as adults use problem-solving, critical thinking, teamwork, and basic academic skills in the conduct of specialized professional-technical competencies.

4. Coordinate Use of Technology

Individually districts are struggling to develop technology to assist with various elements of School-to-Work. Some want to develop an electronic student portfolio, others want to develop a system for matching students career development interests with workplace learning opportunities in the community, and others want to use Internet to connect their students to the world. The state should coordinate the School-to-Work software needs of the districts and provide information about any existing software that might meet their needs or take the lead in contracting to develop areas where no appropriate software are found to exist.

5. Facilitate More In-depth Community, Business, and Labor Involvement

Business, industry and community groups have done a commendable job of providing worksites for visits and career exploration, and of helping to identify workplace competencies. However, it is important that their involvement not stop there. Their involvement is also needed in (a) curriculum development, (b) assessment of workplace competencies, (c) mentoring and continued involvement with students, and (d) reinforcing and enhancing academic skills.

APPENDIX A
SITES AND SCHOOL-TO-WORK COORDINATORS

Site	School -to-Work Coordinator
Bethel	Marilyn Ash
Camas	Susan Garrett
Columbia River School-To Work Consortium (Clark County)	Jill Carpenter
Central Valley	Mike Pearson
Goldendale	Ian Grabenhorst
Grand Coulee Dam	Kathy Proctor
Issaquah	Fern Miller
Methow Valley	Dennis Young
Sumner	Ron Munkres
Wenatchee School District	Landon Fitch

APPENDIX B
TEAM MEMBERS FOR EACH SITE VISIT

Site	Team Members for Site Visit
Bethel	Larry McClure, NWREL Tom Porter, technology teacher, Richland High School Lee Wicklund, visiting superintendent, NWREL
Camas	Roy Kruger, NWREL Rick Kinsley, vocational director, Riverview School District Sandi Madison, career specialist, Mt. Baker School District Bruce Zeller, State Employees 443
Central Valley	Larry McClure, NWREL Dee Adams, counselor, Peninsula Public Schools Mary Schwerdtfeger, Washington State Board of Education Brian Seidman, Washington State Human Rights Commission
Columbia River School-to-Work Consortium (Clark County)	Kim Yap, NWREL Karen Blaha, NWREL Shannon Wiggs, assistant principal, Peninsula School District
Goldendale	Francie Lindner, NWREL Rob Fieldman, vocational program specialist, Workforce Training and Education Coordinating Board Pheeson Liaw, instructor, Everett Community College Roland Smith, technology instructor, Peninsula School District
Grand Coulee Dam	Roy Kruger, NWREL Sheryl Havens, counselor, Riverview School District Sandra Moody, School-to-Work coordinator, Liberty Bell Jr./Sr. High School, Methow Valley School District
Issaquah	Francie Lindner, NWREL Marie Coon, Tech Prep coordinator, South Sattle Community College Paul Parnell, Tech Prep consortia coordinator, Skagit Island Tech Prep

Methow Valley	Bruce Miller, NWREL Liz Stucker, teacher, Tonasket Elementary School
Sumner	Tom Owens, NWREL Jon Kellett, principal, Peninsula School District Cindy Peters, teacher, Richland High School Phillip Schneider, R&D safety assistant, Weyerhaueser Co.
Wenatchee School District	Changhua Wang, NWREL Jim Hendry, business representative and vice president, International Union of Operating Engineers, Spokane office Scott Phillipi, Tech Prep consortia coordinator, Twin County Consortium

APPENDIX C
COMPOSITE SET OF INTERVIEW QUESTIONS GUIDING THE VISITS

1. **HISTORICAL CONTEXT: Into what kind of educational and economic environment has STW been introduced and how have earlier education reform efforts or other initiatives such as Tech Prep affected the development of STW?**

   A. The Environment

   What is the current economic climate for the community?

   What level of local cooperation existed—prior to planning and implementation of STW—among education, business, government, and community agencies and organizations?

   What has been the attitude of students, parents, employers, and school staff towards STW?

   B. Other Educational Initiatives and STW Related Reforms

   Have local schools, districts, or postsecondary institutions been involved in other major educational reform or restructuring efforts in the past five years?

   How does the STW program fit into the development of local or statewide education reform initiatives?

   What elements of STW existed before the state STW grants?

2. **ORIGIN AND OBJECTIVES OF STW: When, how, and by whom was the STW initiative begun? What were its intended objectives?**

   A. Original Initiative

   From where did the initiative for the STW program come?

B **Structure**

How is STW structured in your community? (organizing structure, committees, decision makers, vision, direction).

C. **STW Objectives**

Does the district consider STW to be primarily a way of improving vocational education or as a complete restructuring or strengthening of comprehensive education for all students?

What are the objectives of your STW effort?

5. **PROGRAM COMPONENTS: What is the STW program/effort? What was added beyond what you were already doing as a district?**

A. **Basic Program Design**

What is the basic program design or planned sequence from students' perspectives? What do students actually do?

Has the program design changed from the initial proposal submitted to the state? If yes, how has it changed? What caused it to change?

Are there other program elements or modifications the school (s) would like to implement as part of STW?

B. **Planned Sequence of Student Activity**

Is there a "core program" for all STW students—i.e., a set of activities, choices, or courses that are standard for all STW students?

What are students expected to do over each of the years of the STW program?

Are there career pathways that students select from? Are all or only certain students involved in such pathways? How are the pathways organized?(i.e. what clusters are used?)

C. **STW Curricula**

Has STW changed the academic courses that students take?

How is the curriculum of new or modified academic courses different from what they replace in students' course selections?

Have any new or modified vocational-technical courses been introduced as part of STW?

Have any new or modified guidance and counseling programs been introduced as part of t he STW?

In what ways, if any, do the new/modified academic or vocational courses contribute to "work-based learning" and integration with work-site experiences?

In what ways, if any, do the work based learning experiences contribute to the academic or vocational courses?

E. Guidance and Career Development

What type of information is provided to STW students to help them identify occupational interests and select relevant courses? When and how often is this information provided? Is it provided on an ad-hoc basis—i.e., when students ask for it? Are STW students required to complete an educational or career plan that specifies courses to be taken at both the secondary and postsecondary levels and their occupational goals?

What specific types of career development activities are included in the STW program design or made available to STW students? When and how often do these activities occur?

What role do counselors have in STW? Do they receive special training or information about STW to help them in guiding students?

What role, if any, do parents, employers, and community people play in the career development of students?

To what extent are efforts made to promote career awareness through classroom or other school-based experiences? Are these experiences built into the program activities? What specific activities are involved?

Are any efforts made to improve program retention? Are special support services available (e.g., remediation, vocational ESL, special counseling services) to all or specific groups of students?

F. Employment/Work Experience—

What workplace experiences are part of STW? What is the timing, duration, and nature of worksite activities??

Are all students included in the work experience component? Do students in the worksite component get paid wages? How much?

Does participation in or demonstrated progress at the worksite component of the STW program contribute to students' grades or credits at their schools? Is attainment of competencies at the worksite incorporated into school grades? If so, how are competencies measured? What policies determine how development of worksite skills affect grades? Do participants earn high school credit for work site experience? What criteria determine whether they are awarded credit? How is the number of credits determined?

Does STW students' work site experience include structured training following a planned curriculum? What are its objectives? Who developed the worksite curriculum? Representatives from the individual employer? A group of employers? Teachers? How do employer staff communicate with teachers about worksite and school tasks and activities? Do teachers visit the worksite? Do employer staff and teachers meet regularly to coordinate learning activities? How often?

To what extent does the work place learning curriculum reflect conscious efforts to help students apply or practice skills taught in school classes? Was it developed or tailored especially for the needs of students? What skills and competencies are students expected to acquire? Are the skills they are taught and the equipment they are taught to use up-to-date?

G. Job Placement Services—

Are job placement services a part of the STW program? What staff are involved? What activities do they do?

6. IMPLEMENTATION FEATURES: What activities or efforts are necessary to successfully implement STW and to keep it operational?

A. Promotion

How are students informed about STW? Displays in school? Promotional material sent home or distributed in classes? Informational meetings? Word-of-mouth? What role do school staff play? Businesses? What do students do to pursue further information?

Are there any special efforts made to promote interest among special populations and nontraditional groups? How is this done? What results have been observed? Towards which particular groups have these efforts been targeted?

B. Staff Development

Who determines the STW staff development needs for the district?

Which staff participate in staff development activities? Secondary school administrators? Teachers? Counselors? Postsecondary staff? Representatives of business/industry? How many of each type of staff have participated in the last year?

In what types of activities have staff participated? Workshops? Conferences? Summer training institutes? Other activities?

Which individuals or organizations are providing the staff development activities? Central district staff? District staff? State agency staff? Special consultants? Were staff development efforts concentrated at the local, regional, state, or national level?

What topics received primary emphasis in staff development activities? STW awareness? Curriculum Development? Evaluation? What topics are most needed for staff development over the next year?

Is there ongoing support or technical assistance available for teachers, counselors, and administrators? From what agencies or individuals?

C. Collaboration with Business, Industry, and Labor

To what extent are representatives of businesses, corporations, and business/industry associationss actively involved in the STW program? (How are these individual groups involved in STW? Get examples. Do they sit on the governing board or other working committees? Provide financial support? In-kind support (donating equipment, providing office space for the district or classroom space, allowing STW students to tour facilities, providing speakers for career days or mentors)? Do they participate in identifying or establishing occupational specialties for the program, developing curricula, promoting STW, or providing afterschool jobs for students? Do these people receive any training or preparation for their roles?)

Has labor been actively involved in STW? How? Get examples

D. Student Performance Assessment and Program Evaluation

What is the method for assessing students' performance in school? In the workplace? Are student portfolios used to record students' experiences and accomplishments and evaluate their progress?

Is there a special database or file system developed by/for the district to keep track of students' school and workplace progress? What is included in this system? Data on courses taken, grades, credits earned, competencies achieved?

Does the district have a plan for evaluating the implementation and outcomes of STW? What specific student outcomes, if any, are being measured (e.g., academic skills, employability skills, job placement, postsecondary matriculation)? What specific institutional outcomes, if any, are being measured (e.g., collaboration

between vocational and academic teachers, involvement by business/industry in education)?

How is quantitative or qualitative data for the evaluation collected and analyzed? What methods are used for collecting data? Interviews with key staff? Extractions from student records? Classroom observations? Student questionnaires? Focus groups? Is data collected for all students in STW or for a sample? Are outcomes for students participating in STW compared with outcomes for other groups of students?

7. STUDENT PARTICIPATION AND OUTCOMES: Who takes part in STW, how well do they perform, and how well do they make the envisioned transition to employment and/or postsecondary education ?

A. Participation

Who participates in STW? How many students participate? What is their background, in terms of demographic characteristics and past academic performance? To what extent do students take part in and complete all the components included in the STW program design?

What kinds of positive or negative outcomes have been measured/observed for STW students? Changes in self-esteem? Career awareness? Problem-solving and critical thinking skills? Attitudes towards technical careers? Teamwork skills? How do the staff who report these observed changes explain them?

8. PROGRAM COST: What does it cost to operate a STW program, beyond the cost of existing education programs?

C. Program Operations Costs and Funding

What resources beyond those available in the regular educational program are required from secondary schools, employers, community colleges, and others for ongoing operation of STW?

What role does State STW grant funds play in supporting the development of the overall STW program or specific components of it? What other funding sources have supported the development and operation of STW? How would the program or its pace of development and implementation be different without the state funding?

What are the prospects for sustaining the level and mix of resources required to operate STW at its current scale? Are there plans for expanding the STW program to include new school or workplace components, or to allow more student to participate? What additional resources (beyond those available as part the regular school program) will be necessary to pursue this expansion?

9. STATE AGENCY ASSISTANCE: How has the state supported efforts to develop and implement STW?

A. Policies and Legislation

What state policies affect the operation of STW at the local level (positively or negatively)? For example, how have such provisions as child labor laws, safety regulations, insurance while at job sites, and teacher licensing influenced the design and implementation of your STW program? What other state policies or requirements affect STW?

10. PROGRAM REFLECTIONS: What are the perceived major strengths and weaknesses of the STW program and promising practices that might be useful for other local consortia to adopt?

A. Strengths

What is considered to be the primary strength of your STW program? The support onf business,etc? A particular program component or feature of implementation? Program staff?

B. Weaknesses

What are the perceived weaknesses in the program? Any dificulties getting business or labor to participate? Time available for students to participate? Teacher, parent or student resistence?

C. Promising Practices

What strategies or activities appear to be particularly successful? What strategies or approaches do you consider to be effective? Why? What might it take to replicate these promising practices in other local communities?

Has the district received inquiries from other districts or educators in general about the STW program or particular aspects of it? What aspects were of most interest?

Has the district faced any problems that have been resolved in a particularly creative way?

APPENDIX D
SITE VISIT INSTRUCTION GUIDE

The Northwest Regional Educational Laboratory

Washington State School-to-Work Transition Projects January, 1995

SITE VISIT INSTRUCTION GUIDE

Education and Work Program
Northwest Regional Educational Laboratory
101 S.W. Main Street, Suite 500
Portland, Oregon 97204

EVALUATION GUIDE FOR THE WASHINGTON STATE SCHOOL-TO-WORK TRANSITION PROGRAM SITE VISITS

PURPOSE

The Northwest Regional Educational Laboratory (NWREL) has been contracted by the Office of the Superintendent of Public Instruction (OSPI) through the State Board for Community and Technical Colleges to conduct an evaluation of the School-to-Work (STW) Transition Program in Washington. The evaluation is intended to aid in the understanding of projects funded by the OSPI, document the initial impact of the projects on students, and provide useful information to the legislature and policy makers regarding the continued funding of STW efforts.

The evaluation design calls for the use of a variety of strategies including analysis of project proposals and progress reports, a written survey of projects, and a two day on-site case study visit to each of ten sites to see first hand what is occurring in STW programs. A separate evaluation design document has been developed by NWREL and is available upon request. This present document is intended as a guide to assist STW site coordinators and others in understanding the purposes and suggested procedures for these visits.

PROPOSED STRATEGIES

The contracting of NWREL to conduct a statewide evaluation of STW in Washington began on November 1, 1994. The timeline for conducting the work is short. We will collect and administer a survey of all STW implementation sites by December 16, conduct site visits to ten sites by February 27, 1995, prepare a draft report by January 15, 1995 and complete a final report by June 30, 1995.

A meeting with the state STW evaluation advisory team was held on November 17, 1994 to review the draft of the evaluation design and to identify the key questions that would guide the evaluation. A draft implementation survey was also reviewed and suggestions for improvement were given by the advisory team consisting of the state STW director, business, labor, and legislative representatives, and approximately five STW coordinators in districts funded by the state. The implementation survey was revised and distributed in early December to all STW coordinators in Washington.

A half day visit was scheduled on November 29 and 30 to each the three School-to-Work sites in Washington. The three sites selected for the preliminary visit were Elma High School (a first-year funded site), Bethel High School (a second-year funded site), and

Puyallup High School (a third-year funded site). Each site visit was conducted by a team of people consisting of representatives from labor (Chuck Bailey), the legislature (Randy Dorn and Mike Henderson), OSPI (Tom Lopp), and NWREL (Larry McClure and Tom Owens). A business representative (Tom Dooley) was scheduled to participate but was unable to do so. The pilot test was intended to: 1) identify the type of existing evaluation and descriptive data that may be available, 2) determine the types of key people that should be interviewed during the more extended NWREL case study site visit to other sites, and 3) explore the types of questions that should be asked on the written survey to all STW coordinators and on the case study visits. The preliminary visits were very successful in refining the types of procedures and questions to be addressed on the two day site visits.

FOCUS FOR THE CASE STUDIES

The case studies aim to examine the following:

1) The extent to which the STW projects are meeting the required elements of the HB1820 legislation (the key elements are integration of academic and vocational curriculum, flexible educational pathway options for each student, increased guidance and counseling, partnerships with employers for work-based learning, and active participation of educators, labor, employers and parents in the development and operation of the project)

2) How sites are using the STW funds provided by the state; other funding they have obtained for STW from other sources; adjustments that were made for sites that received significantly less funds than requested

3) Examples of promising STW practices

4) Preliminary impact (academic, vocational, employability)on students of STW projects

5) Effectiveness of STW in collaborating with Tech Prep and Student Learning Improvement Grants (HB1209)

6) Ways in which business, industry, and labor are participating in STW

7) Suggested changes in legislation or program policy

Selection of Sites to Visit

Subsequent to the pilot testing of the site visits we were asked by the State STW Director to select ten sites to give a broader representation of the state projects. These include the four three-year funded implementation sites (Central Valley, Camas, Bethel, and Coulee/Lake Roosevelt) and six of the two-year funded sites (Issaquah, Goldendale, Vancouver, Sumner, Methow Valley, and Wenatchee). An alternative site will be Wapato. This mix of schools will allow us to see the relative status of projects funded under the two grant years as well as to reflect variations in the size, geographic location, and population diversity of the sites.

TEAM MEMBERS

Each site will be visited by a team of 3 to 5 people including a representative of NWREL (who will serve as team leader). Other team members may include a STW coordinator from another community in Washington, a representative of the SPI, and a business and labor representative. The composition of the team will attempt to present a balance of perspectives and will give people in the state a good opportunity to become familiar first-hand with the issues involved in STW.

SITE VISIT ACTIVITIES

Each site visit team will use two days to:

1) Review background documents (such as the proposal; budget; NWREL STW Implementation Survey; press releases; handouts to educators, parents and students; any progress reports etc.)

2) Interview key educators (administrators, teachers and counselors), parents, business and labor, and community representatives

3) Observe a sample of applied academic and technical classes that are part of the school based learning component of STW

4) Conduct a focus group with a sample of 6-9 high school students who have participated in some work based learning activities, and

5) Go to a worksite to observe one or two students and talk with the students and supervisors

SITE STW COORDINATOR RESPONSIBILITIES

The work of the local STW coordinator in the site visit scheduling is critical and greatly appreciated by NWREL and the SPI. Listed below is a summary of the tasks the coordinator is asked to do* :

1) Respond to the NWREL letter and this guide with any questions or recommendations within one week of receipt.

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* This guide has drawn on ideas taken from the Florida Tech-Prep Consortia 1995 Site Evaluation Process prepared by Dr. Frank Hammons. We acknowledge his contribution.

2) Maintain contact with the NWREL staff person who will be designated as the team leader for that visitation

3) Contact and schedule the appropriate persons identified in this guide and prepare an itinerary. Provide NWREL with the itinerary no later than one week prior to the visit.

4) Collect the local STW background documents and make them available to the visitation team one week prior to the site visit.

5) Prepare the orientation briefing for the team.

6) Arrange for the appropriate people to attend the site visit exit conference.

7) Review the draft site report within one week after receiving it and return it to the team leader at NWREL with any suggested changes.

SITE VISIT ITINERARY

The local STW coordinator will be responsible for coordinating and scheduling the site visit itinerary. Specific times should be set for the interviews, observations, and worksite visits. A schedule of interview times, names of those interviewed, and location of interview must be submitted to the NWREL team leader no later than one week prior to the visit.

DAY ONE

Local STW orientation (8:15-9:00). The local STW coordinator (and anyone else he/she selects) will provide the visitation team with an overview of the STW and how it might differ from the initial proposal. This orientation should emphasize key features of STW and how they are being coordinated with Tech-Prep or other educational reform efforts. The coordinator will identify specific promising practices occurring within the project, problems faced, and strategies that assisted in overcoming the problems. Assume there will be at least two team members who could split up to conduct simultaneous interviews and one who could go to a worksite to observe and interview.

Classroom Observations (9:15 -12). A site visit team member will observe at least two examples of applied instruction and vocational technical instruction in a classroom setting. These examples should be at two different schools if possible.

Lunch (12-1:00)

Interviews (1:00-3:30) Conduct one focus group with six to nine STW students collectively for 30 minutes. Arrange 15-25 minute individual interviews with key educators, parents, business and labor representatives, and community representatives.

Site Visit Team Conference (3:30-4:30) The site visit team will meet privately to compare notes and to determine if any issues exist for clarification the following day. The STW coordinator will provide meeting space for the team that is conveniently located based on the interview schedule.

Day One Exit Conference (4:30-5:00) The site visit team will meet with the local STW coordinator to finalize the day two itinerary.

DAY TWO

Observations, Interviews and Continued Documentation Review (8:30-12:00) The site visit team will continue their work from the previous day.

Summation and Lunch (12:00-2:30) The site visit team will meet privately to summarize findings and finalize issues for discussion during the exit conference. Strengths, limitations, promising practices, and policy issues will be discussed. If appropriate, recommendations will be specified.

Site Visit Exit Conference (2:30-3:30) The team will meet with the appropriate local site people including but not limited to the superintendent, STW coordinator, principal(s) and key staff, and community people.

A draft written report will be prepared and shared with the visitation team members for discussion within two weeks. After making any changes needed the report will be submitted to the local STW coordinator for review and any comment within another week. The revised report will appear as a chapter in the state STW evaluation report.

APPENDIX E
EVALUATION ADVISORY TEAM MEMBERS

Mike Appleby	Tacoma School District
Marilyn Ash	Bethel Public Schools
Chuck Bailey	Washington Labor Council
Mike Bjur	Evergreen School District
Tom Dooley	Association of Washington Business
Randy Dorn	House of Representatives
Mike Henderson	House of Representatives Staff
Mike Hickman	Elma School District
Tom Lopp	Office of Superintendent of Public Instruction
Gil Mendoza	Tacoma School District
Ron Munkres	Sumner School District
Mike Pearson	Central Valley School District
Kathy Proctor	Grand Coulee Dam School District
Cheryl Regnier	Central Valley School District
Joyce L. Stubbs	Davenport School District

APPENDIX F
WASHINGTON SCHOOL-TO-WORK SITES: 44 PROGRAM ABSTRACTS

District: **Asotin-Anatone School District** Legislative District:
Project Title: Pathways, School-To-Work Transition Program Funds Received:
Schools Served: No. Students Served:
Tech Prep Consortium:
Contact Person: Paul Boeckman
Telephone: 509-243-1100 FAX: 509-243-4090 Internet Address:

Work Based Learning
Career exploration opportunities (7-9) include job shadowing, mentoring and community experiences through the Learn and Service American program with the Valley Food Bank. High school students in the Community Resources Training (CRT) can receive one semester to one year of training at a job site. Currently students are working in health care facilities, law enforcement and other government agencies and private businesses. The district wants to institute a pre-apprenticeship program with work experience based on students' career pathways. For seniors, a Diversified Occupations Program is also available.

School Based Learning
Junior high students participate in career exploration classes which include taking interest inventories, gathering career information, listening to guest speakers, and writing resumes and cover letters and practicing interviews. Ninth graders select one of six career pathways and begin their career portfolios. In making career decisions, students use a new library-based Career Center with computer access to the Washington Occupational Information System and career related software. A scheduled half hour class, Family Pod, allows students to receive career information and work on their portfolios daily. Members of student leadership organizations in agriculture, business and home and family life participate in entrepreneurial projects, leadership training, and vocational skills enhancement.

Students can enroll in several new classes including computer technology and repair, video production, community newspaper, and technical report writing as well as in ongoing vocational technical courses in agriculture, business, home and family and community resource training. Students in the newspaper class work with community volunteers to produce The Asotin Community Newspaper. It replaces the school paper and district newsletter and provides the only newspaper for the Asotin community. Special education students, who have planned and constructed a greenhouse, participate in a school-based enterprise raising and marketing flowers. The school is extending its enterprise offerings by beginning a Rural Entrepreneurship Area Learning (REAL) program. Students will learn business basics and receive help starting their own businesses. The school is exploring establishing a school-based bank and is planning an annual career fair.

Connecting Activities for Work Based and School Based Learning
The Student Learning Improvement Grant Committee which includes staff, parents, community members and students is involved in the School To Work transition planning. The school counselor has made presentations to School Board, Chamber of Commerce and visited 35 businesses. Business cards, flyers and newspaper articles written by students are part of the publicity effort to involve and inform the community. The district considers school/employer partnerships a "pipeline" for future hiring by local businesses. The district is discussing Tech Prep possibilities with the Clarkston Branch of Walla Walla Community College and advanced placement vocational classes with Lewis Clark State College. A yearly student follow-up for program evaluation is planned.

The school's guidance counselor, whose position was increased from half to full time, teaches career exploration classes, develops pathways and represents the district in preliminary Tech Prep discussions with local colleges. A community resources training director is also on staff. Staff development has included site visits to other schools and in-service training by teachers from other districts on integrating vocational and academic classes with "hands-on" classroom activities; other training includes inservice on cooperative learning and cross-crediting. K-12 staff has attended a School To Work workshop given by Representative Randy Dorn and viewed video tapes related to the transition including one on Central Valley's SCOPE program. A staff member has received training in the REAL program(see above), and the district is planning to develop internships for its teachers.

KEYWORDS: apprenticeships, career inventory, career path, community service, job shadowing, mentoring, portfolio, school-based enterprise, staff development, teacher internship

District: **Auburn School District**
Project Title: Auburn School-to-Work Program
Schools Served:
Tech Prep Consortium: South King County Tech Prep
Contact Person: Michael Newman
Telephone: 206-931-4950 FAX:

Legislative District:
Funds Received:
No. Students Served:

Internet Address:

Work Based Learning
The district intends to provide job shadowing opportunities for all its ninth and tenth graders and mentoring or internships for its juniors and seniors with a summer workplace experience between the junior and senior year. Activities will be connected to the students' pathway choices. Presently, students participate in Boeing internships and cooperative work experience. Subsidized employment is available for those enrolled in the Alternative High Schools Learning Center.

School Based Learning
All secondary students develop a personalized educational plan, a four-year course of study based on the students' activities, interests, aptitudes and past performance. The plan is reviewed annually with students and parents. Students enroll in a series of courses leading to certificates of proficiency in their pathway clusters. (Pathways brochures and course catalogues are being developed.) Portfolios are used as showcases for high school accomplishments and as one assessment of competencies. Academic and vocational programs are integrated with career awareness activities infused in each course offering. During their English class, tenth graders participate in a unit on careers including an orientation to the schools' Career Centers. A tenth grade career exploration day at the Centers includes information on non-traditional careers for women and minorities. Seniors examine post high school educational options in their English classes. Advanced vocational technical students have a five-day unit focusing on careers, post high school training and job readiness skills. Throughout the year, once-a-week luncheon speakers present information on a variety of careers; other speakers provide information on specific pathways or post secondary programs. A daily advisory period for alternative school students focuses upon life skills and occupational readiness. At the Learning Center, students study basic skills in a job-related context. Their curriculum is individualized and competency-based. The district is developing model Tech Prep sequences in a variety of areas including automotive, drafting, electronics, machining, business, marketing and, potentially, natural resources and health related careers.

Connecting Activities for Work Based and School Based Learning
District restructuring to a middle and high school system has coincided with the School To Work transition project. Auburn High has designed its Student Improvement grant around implementing career pathways and personalized educational plans for all its students. The Student Improvement Grant steering committees, along with the Vocational/Technical General Advisory committee, help develop the concept of personalized plans.

A Community Leader' Breakfast was used to introduce the pathways concept and receive community input. The City of Auburn's Mayor's Task Force on Youth 2000, a coalition of the schools and community agencies, provides a network of services to district youth. The Auburn Partnership (TAP) Program, a partnership between local business and the district, facilitates classroom presentation and field sites, and members of several women's professional and service organizations work in various capacities with the district's at-risk youth. The Auburn Youth Resources develops internships for secondary students. Hours for the Learning Center program have been extended through a collaborative grant with the Private Industry Council. The district has articulation agreements with Green River Community College in business education, engineering drafting and automotive programs.

Exposing students to career planning and opportunities is the focus of the high school counseling staff. A part-time project coordinator monitors the students' portfolios and educational plans, acts as a liaison with business and community, helps establishes internship, apprenticeship and job shadowing opportunities,

and helps integrate the project activities into the curriculum. At the high school, a vocational instructor serves as a job training advisor during community placements. The district intends to implement a comprehensive staff development plan. At the present, the school provides release time to its staff for curriculum development, site visitations and seminars. Boeing teacher internships are available

KEYWORDS: apprenticeships, career day, career inventory, career path, competencies, curriculum integration, job shadowing, mentoring, portfolio, staff development, student internship, teacher internship, Tech-Prep, transition plan

District: **Bethel School District** Legislative District
Project Title: An Education Pathway with Many Opportunities Funds Received
Schools Served: 21 Sites No. Students Served: 4,336
Tech Prep Consortium: Pierce County PRO-TEC consortium
Contact Person: Marilyn Ash, Executive Director for Applied Learning
Telephone: 206-536-7272 FAX: 536-7301 Internet Address:

Work Based Learning
During career exploration activities (7-9), ninth graders visit worksites matched with their chosen career paths. Job shadowing (10), mentoring (10-14) and community service opportunities are available with more being developed for the younger students. The district has a cooperative education program. Paid and non-paid work experience and internships for students competent in their fields of study are available for some and have been particularly successful for students in health occupations where taking the CNA certification test is possible for those completing their clinical experiences. Students participate in the DO program and the local JTPA summer youth employment program for targeted youth. Seminars are conducted twice a month by the work-based learning coordinators at two high schools to teach job acquisition skills.

School Based Learning
The BELL program (described below) activities, guest speakers and field trips are a part of the career awareness activities beginning in primary school.Guided by the results of their career assessment, eighth graders select one of five, three-level career paths and begin their career portfolio which is updated yearly. Career path flyers outline recommended courses keyed to career interest and competency levels. Eleventh grade students will develop a transition plan as a basis for a senior project facilitating their move after high school to meaningful employment or additional training. Self-reflection forms, for self assesment are in place for each Voc. Core Essential Learning (CEL). These are added to the career portfolia and help students evaluate their School-To-Work activities and promote life-long learning.

An integrated curriculum exists at all levels through career academies, unit development using CEL from different subject areas and using Career paths to create relevancy and develop authentic projects, and school within school . Human and Health Services consists of academic and vocational teachers. Health occupation students may take classes taught by a registered nurse. Tech Prep courses are offered in manufacturing, health occupations, business and agriculture, and the district sponsors vocational student organizations.

Connecting Activities for Work Based and School Based Learning
The district has restructured its curriculum developing Core Essential Learnings (CELS) for each career path and Learner Outcomes for assessing student competencies on three levels. Standards for measuring the performance of School To Work programs have been adopted, and an ongoing evaluation and monitoring of student success in moving into meaningful employment or post secondary education/training is in place.

A School To Work team that include special ed. has been formed with district staff and community and agency representatives; a community, business and labor steering committee is being developed in collaboration with local Chambers of Commerce for the 1994-95 school year.

The area Chambers of Commerce are important community links. The BELL Program, a partnership with the Puyallup Chamber of Commerce, trains business people and matches them with classroom teachers in all grades to plan and present workplace-related activities. The Chambers are establishing and will maintain a data base of community resources for the School To Work effort. Along with the Private Industry Council and the vocational advisory committees, area Chambers have committed to working with the district on School-To-Work strategies. Formal partnerships with the Puyallup, Parkland and Graham Chambers of Commerce, Pierce County Health Department, Bethel School District, Tacoma Art Guild

and Boeing provide community links for the five career paths. Community members participate in career fairs (5-12) and student tutoring.

To provide continuity and help emphasize the importance of career paths and portfolios, the district's community link coordinator helps facilitate the students' career choices and makes a concentrated effort to follow students from eighth to twelfth grade. Four work-based learning coordinators develop and monitor sites for off campus workrelated experiences and have helped expand the BELL program. At one high school, counselors' duties have been restructured to accommodate the emphasis on career paths and work-related education; they are teamed with teachers to advise groups of students through their four years of high school.

Staff development has included a vocational teachers' retreat with Hypercard Computer Program for developing units, outcomes and assessments prior to a district-sponsored summer institute for teachers K-12. This institute was organized around creating an integrated, relevant curriculum and performance assessments. The model used is Trainer of Trainers in which vocational and academic teacher meet and then train their own staff at their particular building. Staff receives in-service training in developing School To Work instructional material. Increased staff use of technology is a district goal.

Tech-Prep articulation agreements (see above) are in place and a Running Start Program allows students to receive credit from local community colleges for some high school classes.

Efforts have been made to publicize the district's School To Work program including presentations for civic and professional groups and at school board and PTA meetings. The Bridge, a School To Work newsletter for staff and community members and the pictorial Applied Learning Newsletter have been published. Parents of entering eighth graders are invited to view and comment upon the students' career path choices, assessment outcomes and portfolio materials.

KEY WORDS: career academy, career assessment, career fair, career inventory, career path, community service, competencies, curriculum integration, job shadowing, mentoring, paid work experience, portfolio, senior project, staff development, student internship, Tech-Prep, transition plan, relevency, ruberics, and reflection, service learning, learner outcomes, Core Essential Learnings

District: **Camas School District** Legislative District
Project Title: School-to-Work Transition Project Funds Received
Schools Served: No. Students Served
Tech Prep Consortium:
Contact Person: Susan Garrett
Telephone: 206-834-2811 FAX: Internet Address

Work Based Learning
Work based learning opportunities include job shadowing, work experience and placement at Community Resource Training work sites, an Adopt a Student program, Senior project mentorship connection, and other work-based opportunities through the Career Center. Apprenticeships are available through a JTPA program and the Skills Center.

School Based Learning
Students participate in career assessment and choose career paths with the support of an Advisor/Advisee Program. Student portfolios, career speakers, work related seminars and a senior project mentorship are elements of school based learning. Tech Prep courses in business education, health care and auto technology are offered through a consortium with Clark Colleg and SWW area schools. A student workshop on equity and non-biased opportunities with the goals of helping eliminate barriers to and prejudices towards some kinds of work is scheduled for Spring through ASB.

Connecting Activities for Work Based and School Based Learning
School To Work activities are supported through the resources of a new career center. Career center staff assist students seeking work related to their career path.

An electronic system is being incorporated into the remodelling of Camas High School to effectively manage student records as well as provide current job and post-secondary education information. Eventually each advisory teacher's classroom will have access to this information. Decisions have not yet been made regarding which system will be implemented. Consultations, visitations, and observations will begin second semester to determine the system to be used. The building networking systems are now being finalized but progress has been on hold for a while. Grant money has been used to assist the Media Center and career based materials and program. Career pathway activities, integration, and student advisor/advisee programs have placed more demad for these items. eventually the career center and classrooms will be connected to these programs.

The local Chamber of Commerce, Business Roundtable, Camas Downtown Merchants and various vocational advisory groups are helping to develop more work-based opportunities for the district's students. These groups, as well as advisory committees, curriculum councils, booster clubs, social service agents, parents, and the school board have been involved in and informed about the restructuring precipitated by the School To Work effort. Community members have accompanied school staff on visits to other schools, and business representatives read student outcomes and advise on making activities relevant to the work place.The Business/Education partnership facilitates an adopt-a-student and an adopt-a-teacher programs. The local paper helps inform the community about the School To Work transition. The district is encouraging additional parental support for career relevant education.

Staff development has been devoted to the career paths and defining student outcomes. Staff members have attended workshops and visited other schools with interdisciplinary approaches. Learning Improvement Grant monies have been used here to continue the process.

The district hasTech Prep articulation agreements with Clark College and Lower Columbia College through SWW Voc. Directors group(see above).

KEY WORDS: career assessment,career path, career path advisor, curriculum integration, job shadowing, mentoring, portfolio, senior project, staff development,Tech-Prep, transition plan, JAS (Job Acquisition Skills Unit)

District: **Central Valley School District** Legislative District
Project Title: SCOPE Funds Received
Schools Served: Central Valley High School No. Students Served:
Tech Prep Consortium: Northeast Washington Technical Education (NEWTEC)
Contact Person: Michael Pearson
Telephone: 509-922-6735 FAX: Internet Address

Work Based Learning
The SCOPE Program (Student Career Opportunity Paths in Education) offers job shadowing and community service activities. Mentorships in marketing are available. Opportunities for learning from skilled, community professionals include on-the-job training in home construction and internships at a sports medicine clinic.

School Based Learning
The district offers an increasingly integrated curriculum with learning requirements and performance-based assessment. Eighth graders complete a career interest inventory, choose one of six career paths and enter high school with a Individual Student Plan (ISP). Because class lists indicate students' career paths, teachers can tailor instruction in any subject for occupational relevancy. Some students participate in class projects such as designing and building a collection station for Goodwill Industries or working with an engineering team on a mounting system for cash registers. Tech Prep classes will be offered in Manufacturing and Design. Future plans include school-based enterprises.

Connecting Activities for Work Based and School Based Learning

Vocational-technical advisory councils, the school booster club, social service agencies, among other community groups, have been involved in developing, monitoring and evaluating the School To Work effort. The district has an ongoing partnership with Tidyman Corporation which finances the home construction project and the Spokane Builders Association which provides apprenticeship opportunities for students completing the project. Community members take part in classroom discussions and presentations through classroom speaker bureaus.

A partnership with local social service agencies provides assistance for students on personal and family issues so school staff counselors can concentrate their efforts on vocational and academic guidance. The district has recently added a counselor to its staff. A business liaison coordinator develops work-based learning opportunities for the students, but staff members also have been instrumental in developing partnerships in the business community. During the initial School to Work transition, teachers visited local businesses on a staff release day; business people reciprocated by visiting classrooms.

A Career Path Leadership Team composed of instructors who work with department coordinators and a student advisory council also help develop career-related activities and publish a SCOPE newsletter. Student and teachers renovated an ill-used classroom creating the SCOPE Resource Center. The new area contains space suitable for multiclass projects and guest speakers. It houses computers and other SCOPE resources.

Staff development focuses on curriculum, alternative learning strategies and better use of facilities and community resources. A team is enrolled in Vanguard, a state project for curriculum integration, and is developing integrated curriculum for mathematics, science and power technology. Adopting a flexible, alternative scheduling to deliver the work-relevant education is a district objective. To support student learning improvement goals, computer training was provided for classified, counseling and administrative staff. Staff members have attended national and regional Tech Prep Conferences and a Leadership Forum in Washington DC. A two-day conference on SCOPE was held at the high school and it hosts many visitors interested in the program.

The area's Tech Prep Consortium (NEWTEC) supports Central Valley SCOPE activities as a demonstration site and through a grant is helping to establish a student follow up and a program evaluation, develop community service projects, provide more employment and education information for each pathway, expand the use of career portfolios, and promote collaborative activities with a neighboring district. Tech Prep articulation agreements are being developed with the Community Colleges of Spokane in manufacturing and design.

KEY WORDS: apprenticeships, career inventory, career path, community service, curriculum integration, job shadowing, mentoring, portfolio, school-based enterprises, staff development, student internship, Tech-Prep

District: **Davenport School District** Legislative District:
Project Title: Current School-To-Work Transition Funds Received:
Schools Served: No. Students Served:
Tech Prep Consortium:
Contact Person: Joyce L. Stubbs
Telephone: 509-725-4021 FAX: Internet Address:

Work Based Learning
Students take field trips related to their career paths and complete a pre and post evaluation on the experience. The district and local employers are exploring possibilities of workstudy and mentorships in the community. Community involvement in the total School-to-Work program provides valuable input.

School Based Learning
Davenport's current School To Work effort is centered on implementing career paths for its students beginning in the seventh grade. Students are not locked into a path for their entire school career. Exploration is important. This year, the students will select from seven career paths with three levels of proficiency. Career path booklets include school course offerings and schedules, lists of attitudes and skills necessary for success in the field, community and extra-curricular activities related to the career, and a four year plan form including college entrance requirements. Students can take applied academics classes in mathematics, communications, animal biology, and plant biology. A data entry/information processing class is required for graduation.

The school has a new career center with resources including computer access to Washington State Occupation System (WOIS). Guest speakers at the school include representatives from Department of Labor, the Washington State Employment Security and the community college discussing apprenticeships and post secondary education options. Parents of twelfth graders can attend an evening event to receive information about training programs, college and financial aid opportunities for their graduates.

Connecting Activities for Work Based and School Based Learning
The Davenport School To Work plan is supported by the district-wide Strategic Planning Committee; local business people as well as school staff helped develop the career path booklets, select sites for field trips and choose the career center's computer and software. Vocational Advisory Committees are involved in planning for the career path program, and a new counselor dedicates one day each week to School To Work activities.

KEYWORDS: apprenticeships, career path, mentoring

District: **Edmonds School District** Legislative District:
Project Title: Project Based Learning-Career Development/Life Skills Guide Funds Received:
Schools Served: 4 middle school/4 high schools No. Students Served:
Tech Prep Consortium: Northeast Tech Prep (merged with Edmonds and Edmonds)
Contact Person: Monty Multanen
Telephone: 206-670-7120 FAX: Internet Address:

Work Based Learning
Edmonds plans to offer a work based learning sequence modeled on the Boeing internship program and resulting in a skill certificate and/or degree. The district Maintenance Department Internship program which includes experience in carpentry, computer technology, copy machine repair and signage is now underway. Some Tech Prep students take part in paid, three year sequential internships. Cooperative work experience is available and is an integral part of the marketing program. For at-risk juniors and seniors, the Jobs for Edmonds Graduates program provides placement after graduation with nine months of support by a job specialist. Students can receive half a high school credit for their community volunteer service. Project Based Learning activities also take place in part off campus. (see below).

School Based Learning
The district envisions a kindergarten through adult career development program for all its students. Alternative scheduling, career academies, portfolios and junior emphasis on core knowledge, senior emphasis on career paths and community service are some of the School To Work variations in different high schools. Students can enroll in applied academics classes including Principles of Technology, Applied Communications, Applied Mathematics and Material Science. Professional Technical programs are intra-district allowing students to take Tech Prep classes not offered in their home high school. A Career/Life Skills Guide outlining course offerings in five career pathways and how they articulate with associate degree and certificate programs and work place learning opportunities is being developed.

Eventually all students will participate in a Project Based/Contextual Learning Program. Under the guidance of a team of academic and vocation teachers, a counselor and a business partner, students define a work situation and explore a question or solve a problem which can demonstrate their competency in nine applied learning skills. Among other projects, teams have designed and built a Universal Access Park for the City of Lynnwood and produced a feasibility study and design work for a Beach Aquarium for the City of Edmonds.

Connecting Activities for Work Based and School Based Learning
The Work Force Development Alliance of South Snohomish County, a joint effort of the school district, Edmonds Community college, labor and business, is helping expand contacts in community. The Alliance with its School To Work committee is the schools' major conduit to business and community resources. A half time staff member has been added to work with the Alliance developing internships and expanding cooperative work experience opportunities for the students. In addition, sixteen occupational advisory committees review and guide the schools' vocational offerings. Articulation agreements in thirteen Tech Prep fields are in place with five area community colleges.

Staff development has included a district-wide workshop on Project Based/Contextual Learning (see above) and Total Quality Management training by Boeing Company staff for project team members. Core staff at each high school received training in School To Work issues through the National Alliance for Restructuring Education.

KEYWORDS: applied academics, apprenticeships, career academy, career path, community service, competencies, paid work experience, portfolio, school-based enterprise, staff development, student internship, Tech-Prep

District: **Elma School District** Legislative District:
Project Title: Get A Life Funds Received:
Schools Served: No. Students Served:
Tech Prep Consortium: Grays Harbor/Pacific Counties
Contact Person: Michael Hickman
Telephone: 206-482-3121 FAX: Internet Address:

Work Based Learning
Elma students participate in a variety of community projects including fish propagation with the Washington State Department of Fisheries and Wildlife, safety programs with local police and fire fighting professionals and free weatherization and home renovation services for senior citizens with the Community Action Council. The district is expanding this program to include job shadowing opportunities and paid work experience.

Students in cooperative occupational education programs receive high school credit for on-the-job training. Through a partnership with the Elma Agriculture Boosters and the Weyerhaeuser Corporation, summer forest management jobs are available to juniors and seniors enrolled in the Natural Resources Program. Students with special needs can participate in job shadowing and paid work experience in the Home Maintenance Program.

School Based Learning
District priorities include K-12 career education with high school career pathways. Students begin their elective pathways classes and job related experiences early in their high school career because the district has balanced the scheduling of required courses. Students access the Washington Occupational Information System (WOIS) from any workstation throughout the school or in a Career Center whose resources are available to community members after hours. The daily schedule with longer blocks of time facilitates School To Work activities and allow for small group meetings with pathways advisors to develop portfolios, take interest assessments, and receive career guidance.

An increasingly integrated curriculum includes an applied biology and chemistry class as well as Tech Prep courses in business education and aquaculture. School-based enterprises include a high tech aquaculture plant supporting a food fish business, a school store and a greenhouse and plant nursery. Agriculture students produce crops and animal products and home and family life students run a catering and restaurant business.

Connecting Activities for Work Based and School Based Learning
The community participates in the School To Work transition as members of the strategic planning process, the Student Learning Improvement and the Career Pathways Action Planning Teams. Vocational advisory committees, including students and parents, review occupational programs and provide input on curriculum, facilities, equipment and industry trends. A career resource guide listing employers and employees willing to serve as classroom speakers or mentors or provide job shadowing and field trip sites is being developed. (In addition, the guide will list career guidance and instructional materials.) The district's goal is to establish partnerships with at least twenty employers or employees for work based training during 1994-95 school year. School staff regularly reports to the PTA on School To Work efforts and holds Open Houses and Parents' Nights where School To Work activities are showcased. Staff involved in community clubs and organizations are relied upon to inform citizens about the transition.

The district will hire several part time support personnel for its School To Work effort. Staff development includes conferences, school visitations and meetings dedicated to School To Work issues. The school hosted a workshop related to multiple, flexible pathways. Staff members are trained to be career guidance advisors and will be trained to use the WOIS. Tech Prep articulation agreements are in place with Grays Harbor College for business education; agreements in natural resources, automotive and construction are underway. Elma has held Tech Prep workshops for school staffs from other districts.

The district is helping test a process for identifying current, new and emerging occupations; a student job placement service and a follow-up to evaluate its School To Work programs are planned.

KEYWORDS: applied academics, career inventory, career path, career path advisor, community service, curriculum integration, job shadowing, mentoring, paid work experience, portfolio, school-based enterprise, staff development, Tech-Prep

District: **Everett School District** Legislative District:
Project Title: Kindergarten to College to Work Funds Received:
Schools Served: No. Students Served:
Tech Prep Consortium: Everett/Sno Isle
Contact Person: Ron Louviere
Telephone: 206-339-4273 FAX: 206-252-2382 Internet Address:

Work Based Learning
At present, the Everett students participate in a mentors day with local business people. The district is in the process of identifying work based learning components of its School To Work plan and exploring work based opportunities through a collaborative grant from the Department of Labor with the Washington Alliance for Restructuring (see below).

School Based Learning
The district is working on implementing career paths at all four highs schools. Everett Alternative High School and the new Jackson High School are committed to a career pathways model; Cascade High School is "moving towards career pathways." This year's ninth graders at Everett High School will have chosen one of six career pathways based on career interest assessments used in their middle schools. Career pathways brochures are now available to help students plan their high school classes and post secondary education. In addition, a freshman focus class is being planned with a curriculum including an informational interview with a business person, assessment of interests, aptitudes, abilities and learning styles, goal setting, conflict resolution, work ethics and employer expectations. A career fair includes presentations keyed to specific career paths.

Applied academics classes in mathematics, communications and physics/technology are taught at three high schools; Tech Prep classes in drafting are available.

Connecting Activities for Work Based and School Based Learning
An advisory system for the School to Work effort is in place. It is comprised of students, counselors, teachers and administrators from each educational level through the local college and community, business and tech prep representatives. Committees for each career path also include business and community members. The vocational committee of the local Rotary Club and other groups are working to provide more work based learning opportunities for Everett's students and staff. The Rotary Club, in partnership with the school, sponsors the career fair. Articulation agreements are in place with Everett Community College in drafting; agreements in business education and manufacturing technology are being developed.

The district has hired a School To Work coordinator and is in the process of certifying a School To Work transitional coordinator to assure that its disabled students succeed in School To Work activities. A staff member will be hired to replicate the Boeing model for student and teacher internships through a collaborative grant with the Washington Alliance for Restructuring.

Staff develop activities have included a two-day training by a School To Work/Pathways consultant and inservice time for staff to identify learning objectives within career pathways and develop School To Work activities. Staff members have received training on teaching applied academics and facilitating student use of career-oriented software programs. They have visited other School To Work programs and attended a sexual harassment inservice and regional, state and national Tech Prep conferences.

KEYWORDS: applied academics, career assessment, career inventory, career path, mentoring, portfolio, staff development, student internship, teacher internship, Tech Prep

Washington School-to-Work Case Study Report

District: **Evergreen School District and Clark County Transition School to Work Consortium**

Legislative District:
Project Title:
Funds Received: 48,000
Schools Served:
No. Students Served:
Tech Prep Consortium:
Contact Person: Mike Bjur
Telephone: 360-256-6079 FAX: 206-892-5307 Internet Address:

Work Based Learning

The aim of the project is to establish a model apprenticeship program for students in the districts which make up the consortium. By June 1995, a painter decorator youth apprenticeship at the Clark County Vocational Skills Center and at least one other apprenticeship opportunity at one or more of the high schools will be underway. Job shadowing, mentorships and internships through high school career centers currently exist in some sites.

School Based Learning

The academic, work readiness and technical skills education for eleventh and twelfth graders involved in apprenticeship programs is being developed in consultation with a Joint Apprenticeship and Training Committee.

Connecting Activities for Work Based and School Based Learning

The project includes building partnerships with business and industry through informational sessions for the Chamber of Commerce's Education Committee, the Economic Development Council, the Strategic Education Committee, Clark County human resources professionals and other interested agencies and organizations. Those which have been contacted include: labor councils and unions, the State Employment Security Department and the Clark County Sheriff's Department, high tech electronics companies and health care facilities.

The consortium is establishing a countywide database/management system to coordinated workbased learning opportunities; it plans to publish a handbook for the operation of workbased learning activities. Also pertinent to the project is the establishment of a School To Work Council providing a forum for coordinating business, economic development, government and the area's educational systems.

A training component for school administrators, counselors, teachers, business partners and appropriate employees is being planned. A School To Work symposium for teams from secondary schools will be held during the fall '95.

A staff development program for workbased mentors, coaches and master employees providing training for students will include instructional, assessment and feedback techniques and information on coordinating work- and school-based learning.

Five of the high schools have School To Work coordinators. A School To Work Management team with representation from member districts will designate an evaluation team for the model apprenticeship program.

Teachers in can participate in an internship program through the Partnerships in Education Consortium.

KEYWORDS: apprenticeships, job shadowing, mentoring, staff development, teacher internship

District: **Franklin Pierce School District** Legislative District:
Project Title: Career Infusion and Career Pathways Funds Received:
Schools Served: No. Students Served:
Tech Prep Consortium: Pierce Regional Occupational Technical Education Consortium (PRO-TEC)
Contact Person: Tim Stensager
Telephone: 206-537-0211 FAX: Internet Address:

Work Based Learning
The district is working to develop job shadowing opportunities for all high school students. At present, a Junior Achievement applied economics program is available district-wide. Cooperative Work Experience through a Diversified Occupations Program and a JTPA youth apprenticeship program in medical technology for eligible students are offered (see below).Students with special needs can enroll in the district's Learning Increased by Networking Community and Schools program (LINCS). Along with classroom activities, a series of community-based learning opportunities including field trips, job shadowing and, in some cases, a three-month paid work experience allow students to explore career options and develop skills necessary to manage their personal and professional lives.

School Based Learning
The district's School To Work effort centers on developing a comprehensive K-12 career guidance program and implementing career paths in its high schools. Elementary school students will focus on career awareness; middle schools explore career interests; high school students will make career decisions. Preceded by two weeks of career infusion activities in their classes, students participate in a Career Day which gives special attention to non-traditional careers for males and females. Eighth graders will take career assessments in spring 1995 after which the schools will host Parents' Nights to describe the new career guidance model.

The district offers an integrated curriculum with applied academics in mathematics, communications, economics and pre-physics. The communications and pre-physics class are taught collaboratively by academic and vocational teachers. Middle school wood shop classes will become part of a technical education program with a sequential curriculum into high school. High school business classes articulate with those at Pierce Community College. Students in the LINCS program (see above) develop personal and social responsibility in a career-related context during their classroom activities.

Connecting Activities for Work Based and School Based Learning
A strategic planning committee, including students, staff, parents, business owners and members of the community, researched and approved the district's guidance program and career paths. A general vocational advisory committee with representatives from business, labor, the Department of Vocational Rehabilitation and the Private Industry Council advised on the career guidance inservice training for the schools' counseling staff.

The district is a member of the Pierce County Vocational and Special Educational Cooperative, a consortium of local secondary schools committed to developing and improving services for students with special needs. Members of the Cooperative collaborated to provided the youth apprenticeship program in medical technology. PRO-TEC, the local Tech Prep consortium, provided a grant allowing staff participation in conferences focusing on Tech Prep and School To Work transition. Franklin Pierce is working on finalizing articulation agreements with local community/technical colleges to provide 2+2 options for its high school students.

The district is establishing a counseling and guidance department chairperson to coordinate career guidance activities.
At present, five work coordinators help assess the career interests of students in the Diversified Occupations program and assist them in making job and post-secondary educational decisions. This staff works with 100 area employers to provide student work experiences.

Counselors received information on America 2000 and the SCANS report and attended presentations on Central Valley's SCOPE program. With the help of Occupational Information Specialists, counselors then conducted training for teachers on career infusion activities to prepare students for Career Day at their schools. Other staff development has included training on teaching applied academics.

KEYWORDS: applied academics, apprenticeships, career assessment, career day, career path, curriculum integration, job shadowing, paid work experience, staff development, Tech Prep

District: **Goldendale School District** Legislative District
Project Title: School-To-Work Transition Project Funds Received
Schools Served: Goldendale Primary, Middle and High School No. Students Served:
Tech Prep Consortium: Yakima Valley
Contact Person: Robert A. Moco
Telephone: 509-773-5177 FAX: 1-509-773-6900 Internet Address:

Work Based Learning
Job shadowing opportunities are currently available for students in grades 9-12, with the possibility of expanding this to 7th and 8th grade. Some students are exposed to work situations as well as learning the value of community service through service learning placements in non-profit agencies. Approximately fifty high school students participate in the Community Resource Training Program which provides on-the-job training opportunities in local businesses.

School Based Learning
Ongoing curriculum integration including career awareness (K-6) and career exploration (7-12) is part of the district's efforts. A fiber optics link allows sharing career-related information among the three district schools. All eighth graders and new students to the district take a career interest inventory, receive career-path counseling and choose a course of high school study and activities focused on career interests. Career path booklets, used for course decision-making, have been developed. Computer assisted career assessment and career exploration are available to help students refine their career pathway choices. The Career and Academic Pathways to Success program (CAPS) includes group meetings with staff career path advisors throughout the year for activities such as orientation-registration, field trips and speakers for specific career paths. Student exit portfolios contain their career-related activities and projects on computer discs.

High school English classes include job related language skills such as resume writing, interviewing and job search techniques. Students study a mathematics more relevant to the work world through recent curriculum changes. Applied academics courses are offered in mathematics, biology/chemistry, computer assisted drafting and business English/ applied communications. Principle of Technology (applied physics) will be piloted during the second semester in anticipation of its being offered in the 1995-96 school year.

Connection Activities for Work Based and School Based Learning
A district strategic plan created with community input includes elements for the School-To-Work effort. The district has contracted for a one-, three- and five-year follow-up survey of its seniors to assess its success in graduating young adults with "marketable job skills and who are prepared for post-secondary education." The district is establishing partnerships with area businesses such as Kenetech/Windpower to develop relevant curricula including training for windsmiths. Windsmith training might be through the CRT program. Relevant school-based courses would include applied mathematics, Principles of Technology and computer assisted drafting. Funds for teacher training and classroom materials for a computer repair class will be donated by the Bonneville Power Administration augmenting the district's purchase of student tool kits and diagnostic equipment.

A Career Path Specialist has been hired to provide in-service training, develop and implement career-related activities for grades K-12, counsel high school students and their parents on career paths, assist students in using career-related materials, set up a high school career center and develop additional Tech-Prep activities.

The Tech Prep program includes articulation agreements with Yakima Valley Community College for manufacturing and engineering and office technology. Although a master Tech Prep Articulation agreement has been signed, the only specific pathway agreement signed has been in the Business & Office Technology pathway. The others are in the process of being developed.

District staff development has included in-service training for teachers as career advisors. The "Work Now and in the Future" conference was unattended due to reprioritization of our financial resources. We currently have plans to attend the Tech Prep Conference in Seattle in April, 1995. Teachers have visited schools with established applied academics programs and received training in teaching applied academics courses.

KEY WORDS: applied academics, career inventory, career path, career path advisor, curriculum integration, job shadowing, mentoring, on-the- job training, portfolio, staff development, teacher internship, Tech-Prep

District: **Grand Coulee Dam School District** Legislative District
Project Title: School to Work Transition Funds Received
Schools Served: Lake Roosevelt High School No.Students Served: 1000
Tech Prep Consortium: Big Bend
Contact Person: Kathy Proctor
Telephone: 509-633-2143 FAX: Internet Address

Work Based Learning
Students apply and interview with employers for job shadowing (9) and mentoring (10-11) opportunities. Sixty percent of the high school students participate in a cooperative work experience program which the school hopes to expand to paid work experience for all its students. The district plans to extend career guidance and off-campus career exploration opportunities to area elementary and middle schools

School Based Learning
Students will begin their pathways portfolios (PREP) with goal setting in the seventh grade. At present, students chose a career path in the ninth grade. Career Path pamphlets help students select appropriate courses; career information is available in every classroom and used for reading instruction in the chapter and special education classes. Students take applied academics courses in math, communications, humanities, social studies and career planning and development. (Science and health courses are being integrated also.) Career development projects are used for term papers and technical writing exercises Seniors participate in oral examinations answering questions about their high school studies, career path, senior project and future plans. The district expects to offer Tech Prep classes in business (see below) and is working on an agreement to certify students as competent in the use of industry-standard computer software programs.

Community members provide work-related information at the school during presentations on leadership, employment opportunities and workplace responsibilities.With the help of the banking community, students have founded a campus branch of Grand Coulee Dam Credit Union.Those involved in the school-based enterprise attended a leadership seminar, ran for the board of directors, wrote a business plan, applied for positions, and trained at the main credit union.The campus branch will offer full financial services including checking and savings accounts, debit cards and loans. The biology class is applying for a small business loan for an herb garden; the Home and Family Life program will cater the student credit union's open house.

Connecting Activities for Work Based and School Based Learning
A School To Work Council includes instructors from elementary and middle schools. Presentations on the transition have been made to service organizations, the Colville Tribal Business Council and ESC Board. Community members serve with students on School to Work site committee and participate in the seniors orals examinations. The Chamber of Commerce and Rotary are helping to locate mentors. Bi-monthly parent/community meetings are held to discuss issues related to the transition, and the district is exploring a contract system among parents, students and staff regarding the students' schedules for pathways activities.

A paraprofessional in charge of the Pathways Center helps students access employment and training information, work on their portfolios and apply for financial aid. The district plans to expand its career counseling by having trained staff members work with the same students from seventh grade through graduation. Eventually all graduates will be tracked on a one, five and ten year basis to help evaluate the School To Work program.

Staff development plans include training on curriculum integration.The staff is helping develop a skills competency based certificate to comply with the Washington State mandate and will participate in training on student essential learning requirements and assessments. Training, not only for staff but for students and community participants, to enhance learning from job shadowing is planned.

A Tech Prep articulation agreement with Big Bend Community College in business will be implemented; the district hopes to expand agreements to the Wenatchee colleges and to other skill areas.

KEY WORDS: applied academics, career path, competencies, curriculum integration, job shadowing, mentoring, paid work experience, portfolio, school-based enterprise, senior project, staff development, Tech-Prep

District: **Issaquah School District** Legislative District
Project Title: School-to-Work Transition Project Funds Received
Schools Served: Issaquah High School and Issaquah Middle School No. Students Served:
Tech Prep Consortium: Northeast Lake Washington
Contact Person: Fern Miller
Telephone: 206-557-7046 FAX: Internet Address

Work Based Learning
District eighth graders participate in a one-day job shadowing, documenting their experience in a career portfolio which follows them to high school. The Consumer Life Skills job shadowing program is being expanded; as ninth graders, students will be encouraged to explore a different career. At Issaquah High School, students enrolled in the Technical Information Project (TIP) service the district's computer network. This has provided work experience which has led to internships at Microsoft and employment with other companies on computer-related projects. Paid work experience as well as on-the-job mentoring at the Washington School Information Processing Cooperative, DCIC and Boeing is established and available to some students. The job board at the Career Center requires students to have a registration form, typed cover letter and resume, record of a mock interview and three references on file before students can apply for a job.

School Based Learning
Students take a career inventory, develop five-year plans and begin career path plotting in middle school. High school department heads are developing performance based learning through integration of academic and vocational curricula; they are organizing courses, competencies and related school and work based learning activities around a career path model. Brochures with classes keyed to career paths will be available in spring 1995 for planning a course of study. The Technical Information Project (described above) is supported by classroom activities. School-to-Work Transition will play a role in the new Applied Humanities program being developed at Issaquah High School. Four teachers representing Business Law, Business English, Media, and Sociology are developing curriculum that will help students learn general work-based skills and specific academic technical and vocational skills.

Connecting Activities for Work Based and School Based Learning
A School To Work Transition Advisory Committee composed of parents, business representatives, principals, counselors, teachers and students provides guidance in carrying out the grant's objectives and goals. This Committee helped to develop the job description and hire a School To Work Transition Coordinator whose duties include contacting local businesses, assessing their needs, and developing work-based opportunities including mentoring, job shadowing and internships for students. The Coordinator is working to involve businesses (across the district) not already in the established Issaquah Business and School Exchange (IBASE was not funded for the '93-'94 school year). In addition, the coordinator informs the district teachers and staff about school-to-work possibilities and monitors the students' work place experiences.

In order to effectively organize information and material related to the School To Work effort, an employer database and student electronic portfolios have been developed.

Aside from providing opportunities for work experiences, community members are used in the classrooms as guest speakers and Career Day Seminar participants talking about job skills and employer expectations; they also participate in senior projects in some classrooms. Community members help set up "real world" projects for students and serve as an audience during the Spring Forum for eighth grade portfolio presentations. These presentations include the students' career assessments, job shadowing experiences and academic accomplishments. And employers are helping plan job shadows and teacher internships at local businesses through the Business and Exchange Forum.

The Foreign Language Department has developed an Advisory committee that will meet with teachers to give advice on how to infuse career related activities thaat involve foreign language into their curricula.

A multi-media program is being developed that will correspond with the Technology, Engineering & Science, and Arts & Communications Career Paths.

Staff development has included information on available resources for School To Work transition and staff attendance at "Technology and Learning in the 90's" and "Workforce 2000" conferences. Teachers and counselors have participated in workshops on job equity and eliminating sexual harassment. Issaquah High School was recently accepted to participate in the CAN-DO project (Community Access Network—Diversity Opportunities) to agencies providing employment related services to people of color women, individuals with disabilities and others facing barriers to employment. These workshops will be made available at a later date to students and employers participating in School To Work activities.

As member of the Northeast Lake Washington Tech Prep and South King County Consortium, the district has articulated agreements with local community colleges and a technical college.

KEY WORDS: career day, career inventory, career path, competencies, curriculum integration, job shadowing, mentoring, paid work experience, portfolio, senior project, staff development, student internship, teacher internship, Tech-Prep

District: **Kelso School District**
Project Title: School-To-Work Transition Program
Schools Served:
Tech Prep Consortium: Southwest Washington
Contact Person: Paula Radich, Principal
Telephone: 206-577-2422 FAX:

Legislative District:
Funds Received:
No. Students Served:

Internet Address:

Work Based Learning

Work based learning at Kelso High School centers around the Job Placement Center and its coordinator who refers students to jobs which are extensions of their vocational classes or compatible with their career goals. Contracts, signed by the student, parent, school staff member and employer, are used for all work experience programs. The program involves over 100 employers and students work at over 50 worksites. For exmaple, students are employed at the Three River Mall, the Fire District and St. Johns Medical Center. Mentoring and paid employment is available in health care related fields and through the Emergency Services Program. Work experience is part of the Diversified Occupations Program and the marketing occupations curriculum. Red Lobster Restaurant is one of the many employers involved in a partnership that provides work opportunities and, in some cases, employment after graduation for special needs students.

School Based Learning
Junior high students can enroll in high school vocational training classes in agri-science, technology, forestry and keyboarding. The school offers a Technical Writing/Technical Communications class and has recently begun an Emergency Services Program. Tech Prep classes are available. The Job Placement Center coordinator works with teachers to "align curriculum with Job Placement Center requirements;" students must complete a placement file (portfolio) which includes things such as a resume, cover letter, attendance and grade history, mock interview, etc. The Center provides resources including software programs for researching career and educational options. Teachers are encouraged to incorporate the Job Placement Center file into their curriculum. Students produce a portfolio in Home and Family Life Class with a work history, letters of recommendation, cover letters and resumes. A school store (school-based enterprise) is managed by Kelso's marketing education students.

Connecting Activities for Work Based and School Based Learning
During the 1994-95 school year, the district is continuing to develop its pathways and guidance/counseling systems. The Pathways Study Group, which includes students, parents and community members as well as middle school and high school staff, has formulated recommendations for a careers program beginning in elementary school. Committees are working also to complete exit outcomes related to School To Work transition.

A new Business and Education Compact will facilitate job shadowing, mentoring, apprenticeships and other work based opportunities for the district's students. The Washington State Employment Securities works closely with the school's Job Placement coordinator providing class tours of its facilities and job listings for the Job Placement Center. Representatives of the agency serve on the Center's citizens advisory committee.

The Vocational Advisory Committees for the school district and Lower Columbia College are being combined to better support Tech Prep programming. Tech Prep articulation agreements are in place with Lower Columbia College in automotive technology. Articulation agreements are also being developed for business education, computer systems technology and health occupations.

Transition efforts are publicized in the local paper and through presentations to local business and service organizations. A flyer on School To Work is available, and the Job Placement coordinator is a member of an informal network of business people.

A retired business woman arranges teacher internships and job shadowing with local employers to help staff increase their understanding of employer expectations. A consultant on integrating higher order thinking skills into the curriculum is a major component for current staff development.

KEYWORDS: apprenticeships, career path, job shadowing, mentoring, paid work experience, portfolio, school-based enterprise, staff development, student internship, teacher internship, Tech-Prep.

District: **Lake Chelan School District** Legislative District:
Project Title: Expanded School-To-Work Model Funds Received:
Schools Served: No. Students Served:
Tech Prep Consortium:
Contact Person: Lesley Van Over
Telephone: 509-682-5663 FAX: 509-682-3107(home) Internet Address:
509-682-5842 (S.D.)

Work Based Learning

The district has recently implemented the "Mentorships-The Lake Chelan Way," a program which provides a work based learning experience for all interested eleventh and twelfth graders. Numerous mentorships are being devleoped based on students' career paths. Examples of mentorships for students in vocational programs include: nursing assistant students observing health-care professionals at the local hospital and receiving clinical training at a nursing home; students working with employees in technical fields during rotating mentorships at the Public Utilities District; art students assisting artists with murals in a Chamber of Commerce project; science students helping in Forest Service rehabilitation efforts; and students in the Apple Management class identifying and grading apples for local apple sheds. Special education students shadow high school students in their mentorships. Female students have worked at non-traditional sites such as a gas station, lumber company and plumbing shop. Contracts are signed by the mentors (the contracts are available in Spanish as well as English) and background checks are done on adults working alone with the students. High school students take part in a community service project day as the culminating activity in the Visions program (see below).

School Based Learning

The Visions program and the mentorship program (above) are the major components of the district's School To Work effort. All high school students meet in small groups thirty minutes each week with a teacher-advisor. Visions consits of four components: career development, social skills, goal setting, and activities. The nine month Visions curriculum with a different theme each month emphasizes team work to develop students' work maturity and employability skills. As a guided self-evaluation, students produce a portfolio including records of work experiences, extracurricular activities, training, volunteer projects, problem solving projects and a six year plan for their lives. Visions students participate in a career fair to help them identify career options. A proposal has been made to add the Visions program to elementary and middle school curriculum.

The district is implementing the School To Work transition at all levels with field trips and classroom speakers for its K-8 students. AFTERS enrichment classes serve 250 elementary and middle school students. The resource database has been used to locate community members for regular AFTERS presentations. Students receive ribbons for completion of each class, in catagories indicating pathways of interest. High school students can plan their course of study in eight career paths. Career related activities including writing resumes, cover letters and letters of intent are integrated into ninth grade English classes. Students also prepare a career research paper, integrating their personal Visions portfolio information into their research. Reading and other writing assignments revolve around goal-setting and self-awareness. Ninth graders also participate in a unit on interviewing techniques. Human relationship skills and communication techniques are infused into academic classes. At the recommendation of a community curriculum group, 9th graders are offered four exploratories through the year in art, home and family, technology, and business. Cross-age tutoring is offered to elementary students through high school mentorships, and academic classes partnering for elementary projects and presentations.

Health care students receive classroom presentations by personnel from every department of the hospital and from veterinarians, hospice caregivers, counselors and occupational therapists. Guest speakers are used in the outdoor science and agriculture classes. Students in criminology classes work with the local police.

Connecting Activities for Work Based and School Based Learning

An advisory committee of students, community members and educators studied and recommended the mentorship model to the school board. This committee will merge with another mentorship advisory committee comprised of educators, the Private Industry Council and mentors themselves to provide ongoing evaluation of the program. The Community Resources Coordinator kaaps a database of community resources and co-sponsored a "Partnerships and School Reform" workshop with the Washington Association of Partners in Education. AmeriCorps volunteers help develop mentorship positions and provides information to mentors. Americorps has formed partnerships with several local agencies to provide arts enrichment activities to elementary students. The Private Industry Council is assisting in legal technicalities. Large local employers such as Lake Chelan Hospital and Campbell Resort and Conference Center are supporters of the mentoring program. Lake Chelan belongs to the Professional Development Center a coalition of area school districts and colleges which helps coordinate high school and post-secondary education strands. It has articulation agreements for Integrated Technology/Tree Fruit Management programs with Wenatchee Valley College. A culinary arts advisory committee plans to partner local businesses and the school with the American Association of Certified Chefs to offer certification, apprenticeships, and scholarships to students.

A Community Resources Coordinator recruits mentors, oversees the community resources database and publicizes the School To Work effort by making presentations to community organizations and writing a weekly column for the local paper on school-community connections. Staff development has centered around the Visions model with its emphasis on team work. Inservice has included training in communication, consensus building, collaboration and conflict resolution. The staff has been trained to help students find mentors, seek out career-related opportunities, and assure that student schedules meet their individual pathways.

KEYWORDS: career path, community service, mentoring, portfolio, staff development

District: **Marysville School District** Legislative District:
Project Title: Connections II Funds Received:
Schools Served: No. Students Served:
Tech Prep Consortium: Sno-Isle Tech Prep
Contact Person: Patti Cartmill
Telephone: 206-653-0832 FAX: 360-653-9707 Internet Address:

Work Based Learning
Mentorships (especially for vocational students) are available. Paid work experience with training agreements are part of Cooperative Education in business, culinary arts and diversified occupations. Five at -risk students participate in the Boeing student internship program.

School Based Learning
Elementary students take part in career awareness activities; junior high students complete career assessments, begin their portfolios and plan their high school courses and activities according to career interests. Career Pathways have been implemented in grades 9 & 10, to include grades 11 & 12 in the next two years. An integrated Academy model based on Career Pathways in under study for the high school with anticipated implementation on a limited basis and the '95-'96 and '96-'97 school years. Career exploration and decision-making continues through the twelfth grade with career units and a school-to-work transition plan. Students reassess their goals and modify their educational plans at yearly intervals. Grant-funded activities including field trips, speakers and counseling provide information on job equity for all students. A career fair and education/college fair are yearly events.

Applied academics classes including communications and mathematics are available as well as Tech Prep classes in engineering/drafting and business office technology. Students can earn certificates of competency in business education, diversified occupations and culinary arts.

Connecting Activities for Work Based and School Based Learning
A team of staff and community representatives including vocational advisory committee members are developing the district's career pathways and aligning course offerings (9-12) within the career clusters. Representatives from the Tulalip Tribes serve on the School To Work transition team.

A collaborative agreement with Communities In Schools links the district to businesses country wide. The Snohomish County LINK Mentorship organization as well as a partnership with First Interstate Bank and The Herald generates work based opportunities for students. Data from a survey of local employers about necessary entry level skills is being integrated into the district's essential academic learning requirements. Marysville has articulation agreements with local community colleges in culinary arts and business and office technology.

A career counselor coordinates workplace learning opportunities and promotes the Tech Prep programs. The district also employs a Work Based Learning Coordinator who collaborates with business and industry on work based learning activities and is expanding the services of the schools' Job Placement Centers. Additional career guidance educational assistants have been added to help individualize the students' career assessments and school-to-work transition plans. An on-site caseworker from the Tulalip Tribes facilitates transitions back into school or into the workforce.

Staff development has focused on curriculum integration and career pathways. Staff has attended Tech Prep Conferences, visited exemplary School To Work programs and attended a presentation about the Central Valley SCOPE program. To observe how their subject areas apply in the workplace and to learn about careers in related fields, academic teachers participate in a Teacher-To-Industry program. Teachers also take part in the Boeing teacher internship program.

KEYWORDS: applied academics, apprenticeships, career assessment, career path, competencies, curriculum integration, mentoring, paid work experience, portfolio, staff development, student internship, teacher internship, Tech Prep, transition plan

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District: **Methow School District** Legislative District
Project Title: Methow Valley as a Classroom Funds Received
Schools Served: Methow Valley High School No. Students Served:
Tech Prep Consortium: North Central Washington
Contact Person: Dennis A Young
Telephone: 509-996-2436 FAX: Internet Address

Work Based Learning
At Liberty Bell High School, all students participate in the Methow Valley as a Classroom Program (MVCR) where they spend a half a day each week with community volunteer instructors (mentors). This program offers over 200 off-campus opportunities in four strands: career/job skills, leisure,activities, and community service. Some students receive training through the Community Resource Training Program (CRT) from businesses who contract with the school to provide instruction in skills related directly to the students' vocational choices. A program of study is outlined in the students' Individual Education Plans (IEP). For those students in the Diversified Occupation Program (DO), off-campus work experience is coordinated with the school curriculum. Other opportunities for eligible students are available through the local JTPA agency and the Department of Social and Health Services.

School Based Learning
The school offers applied academics courses in communications and mathematics developed in part through the districts involvement in a Tech Prep consortium.

Connecting Activities for Work Based and School Based Learning
The many community volunteer instructors in the Methow Valley Community as Classroom Program include owners and employees of private businesses and government agencies as well as citizens willing to teach special skills such as sign language, writing and woodcarving. Volunteer instructors serve also as vocational and academic guidance counselors and provide student evaluations which in some cases can be used as job recommendations. Other community members provide transportation and assist with paper work and student registration for the program. An Energy Home Show and the Lake Study science field trip are school activities which connect the classroom with community experiences. Students take an active part in planning and presenting an annual community event to recognize and thank community participants.

A staff community volunteer coordinator oversees the Methow Valley as Classroom Program organizing informal student and volunteer instructor training (lack of funds and staff inhibit organized formal instructor training), arranging transportation and facilitating and monitoring student placements. Teachers serve as advocates for student by assisting with placements and making connections in the classroom to the students' community experiences. The DO and CRT Programs have their own coordinator.

While students are in the community, teachers are involved in networking and staff development. Staff members have attended conferences and workshops, often as presenters for a program which has received national recognition. Methow Valley as Classroom was featured in a video segment highlighting the School To Work Transition on TeacherTV. The school would like to strengthen its School To Work offerings with continued curriculum integration, team teaching with community experts and instituting senior projects and international exchange programs with other schools. Unfortunately, lack of funds and a shortage of staff have prevented the development of these ideas.

KEY WORD LIST: applied academics, community service, curriculum integration, mentoring, senior project, staff development, Tech-Prep, transition plan

Washington School-to-Work Case Study Report

District: **Mt Baker School District**
Project Title: Career Paths
Schools Served:
Tech Prep Consortium: Whatcom County
Contact Person: Pam Terhorst
Telephone: 206-592-3303 FAX:

Legislative District:
Funds Received:
No. Students Served:
Internet Address:

Work Based Learning

School Based Learning
Next year's ninth graders will be the first class to choose a career path in Mt. Baker High School's new program. A non-traditional career strand is included in the paths. The ninth grade will be taught a "core model combining academic and vocational classes with common themes and shared projects." Ninth graders will participate also in a grant-funded Sex Equity Youth Project. The school has a career center and career counselor.

Connecting Activities for Work Based and School Based Learning
The project team, including staff counselors, teachers, the vocational and curriculum directors and the principal, reports regularly to a community advisory committee. Partnerships with local businesses are being developed through the Whatcom County Tech Prep Consortium.

Staff development has included attendance at conferences. The Student Learning Improvement Grant for the high school targets curriuculm integration.

KEYWORDS: career path, curriculum integration, staff development, Tech Prep

District: **New Market Skill Center** Legislative District
Project Title: Training-N-Transition Funds Received
Schools Served: No. Students Served: 164
Tech Prep Consortium:
Contact Person: (James H. Taylor)
Telephone: 206 586-9375 FAX: Internet Address

Work Based Learning
Many students enrolled in the New Market Vocation Skills Center's Training-N-Transition (TNT) Program have jobs and are receiving credit for their paid work experiences. Other students can participate in job shadowing and student internships.

School Based Learning
The program, which operates during the late afternoon and evening, offers classroom training in automotive technology and detailing, building technology, office skills, computer assisted design, computer programming and data processing, cosmetology, early childhood education, and culinary arts. GED preparation classes are available. Students in college preparatory classes will use their work experience to hone skills to paid for their post secondary education.

Connecting Activities for Work Based and School Based Learning
The Center collaborates with Thurston County Community Youth Services offering training designed to develop employability skills in high risk adolescents. The goal of the Training-N-Transition Program is "to break down barriers so students can be successful".

Two advocates for the students help them enroll and provide guidance with personal issues. A coordinator serves as a liaison to the students' worksites insuring appropriate instruction and arranging for credit for their on-the-job training..

KEY WORDS: job shadowing, paid work experience, student internship, teacher internship

Washington School-to-Work Case Study Report

District: **Nooksack Valley School District**
Project Title: Work Based Learning Program
Schools Served:
Tech Prep Consortium: Whatcom County
Contact Person: Deborah Granger
Telephone: 206-988-2641 FAX:

Legislative District:
Funds Received:
No. Students Served:

Internet Address:

Work Based Learning
The district is working on systematically increasing community-based learning opportunities. Job shadowing, internships, mentorships or apprenticeships will be a recommended part of the juniors' and seniors' career pathways activities. In addition we do career interest surveys at seventh, eighth, tenth, and eleventh grades. At present, seventh graders visit their parents' job site, and some at-risk students participate in student internships at a local grocery store chain (see below).

School Based Learning
The district began implementing its School To Work program during spring 1994. The plan includes integration of career awareness with the curriculum (7-12). A modified block schedule facilitates School To Work activities. Eighth graders take a career inventory, choose one of five career paths, begin a career-planning portfolio and initiate plans extending through their first two years of post-high school training. These plans are reviewed and revised yearly. Newly published career pathways brochures are available to help students schedule their high school course of study. At an updated career center, students have access to computerized career information and guidance programs, information on post high school training and community based learning opportunities. Tenth grade English curriculum includes resume writing and interviewing. Portfolios are reviewed on an annual basis. Juniors focus on post high school education and training by visiting local colleges and universities. Seniors review with a counselor their portfolios and plans; the school sponsors an evening event for seniors and their parents which includes financial aid information. Career Day and career exploration seminars are other annual events.

Nooksack Junior/Senior High School offers applied academics classes in communications and mathematics. Using forty acres of donated land, the Outdoor Education program integrates environmental sciences with hands-on carpentry and a woodshop program. The district is working to integrate Outdoor Education with the county-wide Tech Prep Environmental Sciences strand.

Connecting Activities for Work Based and School Based Learning
The School-to-Work Transition Task Force included teachers, counselors and administrators. This group presented their work to the school board, the Vocational Advisory Team and the high school Parent Advisory Committee for their input on career pathways, portfolios and curriculum integration. Representatives from local tribal offices are participating in the implementation of School to Work programs also.The district has formed a partnership with the Private Industry Council and intends to adapt the Council's SCANS-based program designed to help students connect work-based with school-based learning.The district used funds from a Serve America Grant to develop a network of local businesses, agencies and community members willing to provide work based opportunities. The RSVP organization will act as co-coordinator for student participation in community service projects. A partnership with Consumers Choice, Inc. has provided internships with mentors (see above). Employees of the store tutor weekly in the elementary school. Nooksack Valley has participated in the formation of a Whatcom County Tech Prep Consortium which is developing articulation agreements in business technology with Bellingham Technical College and Whatcom Community College.

A part-time career/vocational coordinator has been hired to assist with the School to Work transition; a career guidance counselor is stationed at the career center. Staff development has included attendance at the Work Now and in the Future and Tech Prep Conferences, Career Counseling for Change and applied academics workshops, visitations to exemplary School To Work programs and training on curriculum integration.

KEYWORDS: applied academics, apprenticeships, career day, career inventory, career path, community service, curriculum integration, job shadowing, mentoring, portfolio, staff development, student internship, teacher internship, Tech Prep

Washington School-to-Work Case Study Report

District: **Northshore School District** Legislative District: 1,44,45,32
Project Title: Career Opportunities for Northshore Funds Received: $95,250
Schools Served: five junior highs, four high schools No. Students Served: approx. 4,000
Tech Prep Consortium: Northeast Tech Prep Consortium
Contact Person: Dennis Milliken
Telephone: 206-489-6430 FAX:206/ 489-6430 Internet Address:

Work Based Learning
Students internships are a component of Northshore's Restaurant/Hotel Management, Automotive Technology, Health Occupations, Graphic Arts and Cosmetology Programs. Health Occupations students, for example, intern for 180 hours at Harborview Medical Center and 120 hours at local long-term health care facilities; those in Restaurant/Hotel Management participate in paid and unpaid off-campus work experiences. Paid jobs are part of the Cooperative Occupational Experience programs in Marketing Education and Diversified Occupations. All work-based learning activities require contracts signed by students, parents, employers and school representatives.

Mentorships are available to students in both vocational and academic programs including fields related to education.
The district's alternative high school has a Friday schedule which requires student community involvement and networking; plans are underway for community service projects at all high schools.

School Based Learning
Career pathways were implemented fall 1994 at Bothell High School. A similar program will begin next year at Inglemoor. Prior to enrolling in high school, ninth graders take career inventories and select one of the following five pathways--Arts and Communication, Business and Marketing, Education and Human Services, Health Careers and Science and Technology. Recently published pathways brochures help students choose classes pertinent to their interests. Throughout high school, small groups of students with common career interests are guided by teachers serving as career path advisors. Dedicated time is scheduled for these advising activities.

Northshore's schools offer a variety of vocational programs (see above), applied academics classes in communications and mathematics and Tech Prep courses transferrable to local colleges.

Connecting Activities for Work Based and School Based Learning
"Career Development" was identified as a major curricular area during the district's core competency development project. Supported by the Student Learning Improvement Grant, staff teams including junior high staff members worked on implementing career pathways and integrating career information, student portfolios and community service with the curriculum. The junior high staff met with parents to explain the school's transition to career pathways.

Membership in the National Alliance for Restructuring Education has facilitated developing the district's career pathways and given direction in planning for more work-based learning opportunities. The Washington Alliance for Systemic Change, a consortium of local school districts, is replicating the Boeing Internship Program which will provide 50-60 two and three-year internships for students and 10-12 teacher internships. Through the Alliance's Workforce Development group, members of the business and labor community help develop skill standards and curricula for the district's educational programs as well as provide worksites for students. Articulation agreements with local community and technical colleges are established or in progress. Up to 500 hours of internship in restuarant/hotel management articulates with Washington State University's program.

A part-time coordinator and assistant for the School To Work effort and three full-time certificated occupational information specialists are employed by the district. Staff development has included attending National Alliance for Restructuring Education and the Designing the New American High

School conferences, a presentation on the Central Valley High School's SCOPE program, training in applied academics and a five-part equity training series on eliminating discrimination in the workplace. The district provides opportunities for staff to work on curriculum integration and project-based learning. Staff members also participate in job shadowing and the Boeing Teacher Internship Program.

The WA Alliance for Systemic Change has provided roll-out conferences on STW and Certificate of Mastery. National leaders and best practices are featured as components in these conferences. The four vocational directors in the Alliance districts serve as STW Learning Environment Network Leaders in Alliance endeavors.

KEYWORDS: applied academics, career inventory, career path, career path advisor, community service, curriculum integration, job shadowing, mentoring, paid work experience, portfolio, staff development, student internship, teacher internship, Tech Prep

Washington School-to-Work Case Study Report

District: **North Thurston School District** Legislative District:
Project Title: Century Scholars: School -To-Work Transition Project Funds Received:
Schools Served: No. Students Served:
Tech Prep Consortium:
Contact Person: Gail Covington-McBride
Telephone: 206-493-9622 FAX: Internet Address:

Work Based Learning
This grant applies to New Century High School, an evening academic program serving Thurston County students with high ability and low motivation. Because students attend school during evening hours, many work during the day. Fifty percent of New Century's juniors and seniors are employed in work based learning sites through the school's Occupational Internship Program. Students are able to "try out" an occupation during a three-hour job shadowing. If the job is of sufficient interest, the shadowing experience becomes a ten-week mentorship

The Learning Community Projects program links teachers and groups of students with a business partner in different community service projects each semester. During the three days set aside for the experience, the team engages in a community based activities. For example, the Swamp Walk teamed students and a biology teacher with a representative of the City of Olympia's Water Management Program to monitor a wetland, compile and interpret information gathered at the site and build an educational display. As well as attempting to address the other SCANS objectives, the major goal of the projects is to have students see that classroom learning is related to the work world.

School Based Learning
In early 1995, the school plans to implement career academies in health careers, public service and business/marketing.These fields complement established work based learning sites. Students will take career interest inventories, develop a school-to-work plan and enroll in the appropriate academy. (In 1996, the school plans to begin on-campus summer computer camps which will utilize technology to teach critical thinking skills.) At present, classes are offered which include instruction in job hunting skills and work ethics; tutorials in goal setting, motivation and leadership are available throughout the school year.

Career panels and seminars taught by business and community members occur during Community Learning Projects. Students plan and research their projects and interact with the teams' business partners in the classroom as well as on-site (see above in work based learning).

Mathematics, science and technology are emphasized in the curriculum. During class time, computers are available; lap tops are checked out to students for home use. Two hour time blocks are scheduled for the freshman team-taught interdisciplinary curriculum. Students can take advantage of Tech Prep agreements with South Puget Sound Community College enrolling at other schools if courses are not available at New Century. The Running Start program is available to students wishing to enroll in college and receive high school credit for their courses. Students needing basic skills remediation can receive tutoring.

Connecting Activities for Work Based and School Based Learning
The Community Link Committee, comprised of representatives from higher education, county business people, local government leaders and public agencies, provide counseling and college advisement, employment sites for career exploration and shadowing opportunities, time and financial support, consultant services and full business partnerships. Evergreen State College and Washington State University collaborate with the New Centruy staff on activities which stress mathematics and science in everyday life.The school has developed a database of job shadowing sites in occupations represented by the career academies.

A Community Links Coordinator helps the staff and students design and implement their Learning Community Projects as well as assists the Project Director for New Century's School To Work transition.

The school is prepared to produce a video about its project and host workshops each summer for others schools interested in replication.
Staff development includes training in curriculum integration and portfolio assessment and on the Abacus system (a way of developing assessments and monitoring student progress). Some staff members also participate in job shadowing experiences.

KEYWORDS: career academy, career inventory, community service, curriculum integration, job shadowing, mentoring, portfolio, staff development, Tech Prep

Washington School-to-Work Case Study Report

District: **Peninsula School District** | Legislative District
Project Title: School To Work Transition Project | Funds Received
Schools Served: Gig Harbor and Peninsula High Schools and Henderson Bay Alternative School | No. Students Served:
Tech Prep Consortium: Pierce County
Contact Person: Gerald W. Butts
Telephone: 206-857-3594 FAX: Internet Address

Work Based Learning
During the last year, one hundred and eighty-five Peninsula students participated in activities with worksite agreements. Activities included internships, rotating work experiences at a local telephone company for CAD students, and placements with Ecom, a local technology firm, for microcomputer students. At one school, an on-the-job training program for special education students is available. The district is trying to better relate its community service requirement to the School To Work effort and to link its in-school programs to the jobs of students working in areas not directly related to their career goals.

School Based Learning
The district is developing a career assessment program, designing a student planning and decision-making curriculum, and adopting a School To Work transition portfolio model for its sixth through twelfth graders. A curriculum bank for project-drive instruction is being developed for middle school students. Ninth graders study English linked to a business technology computer class. Gig Harbor High School has instituted career pathways and is integrating its curriculum with emphasis on including technology in all activities. Applied mathematics classes are available; more applied academics courses are being developed. The district intends to have its students assist the staff in organizing and delivering some of its programs particularly those using technology. An applied communication program is being developed around the expansion of the district's radio station. This effort is a partnership with Peninsula Light Company and will include a fully functioning television studio and video reproduction program. More students are enrolling in vocational technical classes. Students attend the Kitsap Peninsula Vocational Skills Center.

Connecting Activities for Work Based and School Based Learning
School To Work transition efforts have been focused on raising awareness and gaining staff, parent and community support for making "systemic change." The district held a "summit "of its department chairs, teachers, counselors, administrators and board members to discuss School To Work issues and set priorities for change. In addition, a nationally known speaker on economic and workplace changes addressed a joint staff-community meeting, provided a follow-up workshop with staff and made a presentation at local the Chamber of Commerce.

Staff development activities have included attendance at Work Now and in the Future and regional Tech Prep/School To Work Transition conferences and a ten week Tech Prep Teleconference for secondary teachers. A Boeing Tech Prep Representative and the coordinator of the Pierce County Tech Prep consortium have discussed with staff members the importance of School to Work Transition programs. Training to help teachers develop class assignments that prepare students for work directly related to their career pathways is being planned. Teacher internships at Boeing are available.

An administrator for secondary curriculum and vocation/technical programs was added to the staff. A new half-time middle school counselor with the advice of a consultant is coordinating and implementing a comprehensive 6-12 career development guidance program and working to increase the number of quality, work-based experiences for students. The consultant is continuing the district's efforts for systemic change by designing staff development activities and community information programs. The district is increasing the staffing for the diversified occupations and marketing program allowing more students to enroll as more job placements are available.

Thirteen vocation/technical program committees and a general advisory committee are working with instructors on work-specific competencies. The district is developing Tech Prep articulation agreements with Tacoma Community College in five vocational/technical areas. A graduate job placement service is planned as well as a program evaluation to be linked to the data collection procedures in vocation/technical programs.

KEY WORDS: applied academics, career assessment, career path, community service, competencies, curriculum integration, portfolio, staff development, teacher internship, Tech-Prep

Washington School-to-Work Case Study Report

District: **Puyallup School District** Legislative District:
Project Title: School-to-Work Transition Plan Funds Received:
Schools Served: No. Students Served:
Tech Prep Consortium: Pierce County Tech Prep (PROTEC)
Contact Person: Karen Hansen
Telephone: 206-841-8761 FAX: 206-840-8884 Internet Address:

Work Based Learning
All Puyallup's eleventh and twelfth graders will have access to work or community-based experiences when the School To Work transition is fully implemented. Currently, vocational students can participate in an expanded Cooperative Work Experience program.The district is coordinating efforts with the Private Industry Council to develop paid youth apprenticeships and internships particularly for students interested in health care.

School Based Learning
Eighth and ninth graders work with career specialists on taking career assessments, obtaining career information and identifying a career interest area in one of five career strands (career pathways): Business and Administrative Services, Communication and Arts, Health, Education and Human Services, Industry and Technology, and Science and Natural Resources. Career strand brochures, including a Tech Prep insert listing programs available in the Pierce County area, are available to help students select their high school classes. Junior high students also begin their Transition Plan Folder (portfolio). These folders are updated periodically, and career interest assessments and goal setting is ongoing throughout high school. Juniors and seniors identify and explore post high school educational options; a career-oriented senior project is required for graduation at Gov. Rogers High School.

Vocational class curriculum is performance-based and has been expanded to include SCANS skills. Tech Prep programs are being developed in business, manufacturing, environmental science and medical science. The District is working to obtain articulative agreement with postsecondary evaluators in these program areas.

Connecting Activities for Work Based and School Based Learning
During the 1993-94 school year, a district transition team of staff members developed a transition philosophy and awareness publicity plan aimed at staff, district administrators, the business community and the school board. This plan is being implemented during the 1994-95 school year. The school board has appointed community members to a Council for Workforce Training which is responsible for the district's work based learning efforts. The Council is currently developing work-based opportunities and competencies for the Certificate of Advanced Mastery. Representatives from local colleges serve as ad hoc committee members. In addition, the district's twenty-four vocational advisory councils are now organized around the five new career strands.

The Eastern Pierce County Chamber of Commerce is helping identify local employers willing to assist with work based learning experiences including job shadowing, mentorships, presentations and field trips. This information will be contained in a database available to teachers wishing to use community resources in their instruction. The Private Industry Council is helping develop "Standards for School-to-Work Transition Modules," thirteen units covering workplace readiness competencies which will be infused into a variety of courses within each career strand.
The district has articulation agreements with Pierce County community and technical colleges.

Two junior high two senior high career specialists advise planning, provide current occupational information, and assist both students and staff with community based career activities. Transition Specialists direct the work based learning and assist students with their transition into post-high school options. They are working to develop work site competencies for each community site, support activities for work site supervisors, and a handbook to assist work-site supervisors. They also provide current

workplace information and inservice training on career activities to the staff. The staff at both high schools are plannng a student advisory program designed to give more individualized assistance to students. Teachers are working on developing assessment instruments in community- and school-based transitional activities. Staff development has included attendance at conferences on School To Work transition and applied academics. All vocational-technical teachers have at least 25 hours of extended time for profession development and inservice training. Most have 125 hours for these acitivities.

KEYWORDS: applied academics, apprenticeships, career assessment, career path, career path advisor, competencies, curriculum integration, job shadowing, mentoring, paid work experience, portfolio, senior project, staff development, student internship, Tech Prep

Washington School-to-Work Case Study Report

District: **Richland School District** Legislative District:
Project Title: Transitions for Highest Standards Funds Received:
Schools Served: No. Students Served:
Tech Prep Consortium: Columbia Basin Tech Prep Consortium
Contact Person: Teri Kessie
Telephone: 509-946-5121 FAX: Internet Address:

Work Based Learning
Students in the Cooperative Office Education and Inquiry into Science programs participate in paid work experiences with training agreements signed by students, parents, school officials and employers. The school also offers a Cooperative Work Experience program in marketing. These programs continue to offer students invaluable experiences. We are currently working to increase sites in the private sector as the Hanford site prepares to downsize. However, even with massive contractors have chosen to maintain cooperative programs at current levels. Eligible students can receive job training through Job Training and Partnership Act (JTPA) funds. JTPA money is being utilized to help prepare 10 special education students workplace readiness skills through paid internships.

The district plans to implement a work-based activity at each grade level. Currently, ninth graders participate in a job shadowing experience as part of a career unit. Job shadowing will become a sophomore activity, and ninth graders will attend the World of Work Career Fair instead. The school will assign its juniors a business mentor/advisor with assignments to complete with this mentor during the school year; senior projects, conducted as group internships, will focus on solving a problem and presenting the solution to local business leaders. A committee of counselors, adminstrators, teachers, and community members is continuing work to finalize a "scope and sequence" that will be supported by the entire staff. Freshman are preparing to attend the World of Work Career Fair with an extensive career unit; we will add the other events as this class moves up. Our consumer teachers are working to revise their curriculum to become the culminating School-to-Work effort for seniors.

School Based Learning
After meeting with a counselor for career guidance, ninth and tenth graders use the computerized Washington Occupational Information System to develop career-oriented short and long range plans. Students also have access to software versions of the Occupational Outlooks Handbook and Dictionary of Occupational Titles. A career center has been organized in the high school library. We are working to enhance these opportunities for our students by looking at other available career assessment programs such as the American College Testing Discover program. We are presently working with Carmicheal and Chief Joseph middle schools to start the career assessment in the eighth grade.

An increasingly integrated curriculum is offered. It includes a Food and Fitness and Keyboarding/Language Arts course. Other applied academics projects underway are a ninth grade Language Arts Career Unit /Shadow Day, Marketing/German International Marketing and an Engineering/Science class. We are also studying the feasibility of going to a four period day in 1996-97 to enhance integration efforts.

Connecting Activities for Work Based and School Based Learning
Educators, students, community members and parents helped develop and implement Richland's School To Work transition. The district is scheduled to incorporate career pathways into their program during the 1995-96 school year.

Richland works with the Mid Columbia Youth Consortium (JTPA) and the Collaboration of Vocational and Special Educators which facilitates school-to-work transition plans for students with special needs. The Tech Prep Consortium, a General Advisory Council and 100 business people provide planning and resources for the area's World of Work Career Fair. The Hanford Educational Pipeline Consortium, a coalition of superintendents, vocational directors and Department of Energy contractors, is the area's

clearinghouse for a variety of educational programs which expose students to "work-day realities." A plan is underway for Westinghouse Hanford to loan an executive to help with local School To Work transition efforts. This consortium has helped Richland High School-to-Work efforts in many ways, such as mock interviews given by their employees to over 500 Richland School District students. Tech Prep articulation agreements are in place with Columbia Basin Community College for Richland's welding program. Auto Tech and business Tech are in the midst of their work to develop articulation agreements; our consortium has been chosen to pilot the state auto scanning system. Our community college instructors have been working diligently alongside our instructor to get this opportunity up and running for our students. Student participants in JTPA have increased substantially since last year. We are currently putting together our summer program which will include a course which models the state Teachers Recruiting Future Teachers program. Richland High teachers will also be joining area vocational and special educators for a workshop on how to help special education students meet Inidividualized Transition Plan goals.

By combining School To Work and district funds, Richland has hired a School To Work Transition Coordinator for 1994-95 school year. The district hopes to hire a Occupation Information Specialist to provide more career guidance to its students. The staff has attended the Work Now and In The Future and several Tech Prep conferences, visited Portland and Mount Hood Community Colleges and participated in a workshop on Central Valley's SCOPE program. Other staff development has included a workshop with a consultant on developing a restructuring philosophy and plan and training for ninth grade teachers on a career academy model. Funds were used to pay teachers for an extra day to learn more about School-to-Work; even though attendance was optional, about 99% of the staff chose to attend. Staff has exchanged information during an inservice about the contents of their classes. In order to make connections for curriculum integration, a visual aid was developed to illustrate the scope and sequences of all courses.

KEYWORDS: career academy, career path, competencies, curriculum integration, job shadowing, mentoring, paid work experience, senior project, staff development, student internship, Tech Prep, transition plan

Washington School-to-Work Case Study Report

District: **Riverview School District**
Project Title: Bridging School and Work
Schools Served:
Tech Prep Consortium: Northeast Tech Prep Consortium
Contact Person: John Irion
Telephone: 206-788-6610 FAX: (206) 788-4842

Legislative District:
Funds Received:
No. Students Served:

Internet Address: jirion@psesd.wednet.edu

Work Based Learning
Riverview is initiating work-based learning during the 1994-95 school year. Opportunities for students will eventually include: mentorships, field trips, job shadowing, job training and student apprenticeships. Mentors are required for senior projects (see below).

School Based Learning
The district is expanding its career education program to its middle school. Career awareness activities will include taking a career inventory, writing a research paper, using the Washington Occupational Information System to obtain career information, developing a six-year academic plan and attending a career day. High school students focus on one of five newly implemented career pathways: Business, Administration and Marketing, Industry and Technology, Arts and Communication, Science and Natural Resources or Health and Human Services. Ninth, tenth and eleventh graders take sequential career units. Juniors complete a resume during their English class, and students in all disciplines develop a portfolio. Both the high school and middle school now have career resource centers.

Middle school and high school teachers are reviewing/revising curriculum units and assessments to integrate academics and the world of work. The district requires a keyboarding/information processing class for graduation. Students complete their senior project by researching an area of interest, designing and creating a project, writing a research paper and presenting it to a panel of community members and school staff.

Connecting Activities for Work Based and School Based Learning
To provide leadership in the School To Work transition, the district organized three committees of staff and community members. The Career Education Committee works on expanding career education to the middle school and enhancing career day. The Project Futures Committee developed the five career pathways and is working on curriculum integration and benchmarks for student performance. The Joint Venture Committee focuses on school-business partnerships. This committee produced a brochure outlining twelve areas in which businesses can collaborate with the schools. The brochure is used for identifying and recruiting businesses to be paired with students and staff. Because the Riverview School District serves Carnation and Duvall, two small communities with limited career opportunities, the committee is approaching businesses outside the immediate area. The district participates in the Northeast Tech Prep Consortium which includes three community colleges, a private technical college and two four-year institutions.

A head counselor position was created to provide leadership and direction for K-12 guidance and counseling; the high school has a career education specialist. Staff development has included inservice focused on School To Work transition for all high school and middle school staff. A middle school inservice on developing a performance-base system of instruction has provided opportunities to integrate career education with the curriculum. Academic teachers have attended a vocational conference and are developing an integrated, performance-based curriculum at the high school.

KEYWORDS: apprenticeships, career day, career inventory, career path, curriculum integration, job shadowing, mentoring, portfolio, senior project, staff development, Tech Prep

District: **Seattle School District** | Legislative District:
Project Title: Roads to Success | Funds Received:
Schools Served: Rainier Beach High School | No. Students Served:
Tech Prep Consortium:
Contact Person: Marta Cano Hinz
Telephone: 206-281-6090 FAX: Internet Address:

Work Based Learning
This grant was awarded to the Seattle School District for Rainier Beach High School's Roads to Success program. The program's work based learning activities will be implemented during the 1995-96 school year. Rainier Beach's tenth graders will participate in job shadowing and community service. Eleventh and twelfth graders will take part in mentoring, internships or apprenticeships. Paid work experience may be available as well.

The school's established Teaching Academy magnet program includes tutoring, internships, practice teaching and mentoring of younger students. (Its community service component will be the model for the wider application in Roads to Success.) Currently, students with special needs participate in career exploration/shadowing, mentoring and apprenticeships through the Belief Academy (see below). Some Tech Prep students take part in Boeing student internships.

School Based Learning
School based learning components of the Roads to Success program were implemented fall 1994. Incoming freshmen are now enrolled in a language arts and social studies class which encompasses social skills, study skills and career exploration. The class is team taught during a block schedule and is intended to help students make a smooth transition from middle to high school and into a career path. Ninth graders work on career readiness skills through a series of units taught by the career specialist, take an aptitude test prior to selecting a career path and formulate an individualized four-year plan. Tenth graders will focus on their career pathways and participate in community service next year. Portfolios and senior projects are also components of the Roads to Success Program.

Ninth graders are required to take a class in computer literacy. An applied mathematics class is available as well as applied academics courses in two other departments. Rainier Beach offers twenty-one Tech Prep classes and a career academy program for future teachers (see above).

Connecting Activities for Work Based and School Based Learning
Rainier Beach's new career path program was the focus of its strategic plan. This plan is supported by the school's Site Council as well as the PTSA, the Alumni Association, the Chamber of Commerce and Cities in the Schools. Forty business and community people and parents attended a May Release Day to learn about and possibly participate in Roads to Success. Students, parents and community members are included in the program's ongoing development.

Rainier Beach has partnerships with The Boeing Company, South Seattle Community College and Johnson and Higgins, Inc. The University of Washington, sponsor of the Belief Academy, obtained a federal grant to demonstrate that a school-to-work transition program can benefit students with special needs. Eleven Tech Prep articulation agreements are in place. Representatives from Rainier Beach serve on the Strategic Planning Committee for the Tech Prep consortium.

All staff members have chosen a pathway in which to participate, and a Leadership Team with members from each of the four pathways has been organized. A Pathways Coordinator from the team articulates its activities with the school's departments and grade level teams. The counseling staff has been expanded by one FTE, and a counselor is assigned to each career pathway. The career counselor's role has been redefined recently to more closely match the goals of School To Work transition. Staff development has included Instructional Technology workshops led by Boeing personnel to acquaint the staff with current

technology and the use of software in the classroom; some staff members take part in Boeing teacher internships during the summer months.

KEYWORDS: applied academics, apprenticeships, career academy, career path, community service, job shadowing, mentoring, paid work experience, portfolio, senior project, staff development, student internship, teacher internship, Tech Prep.

District: **Sumner School District** Legislative District
Project Title: School-to-Work Connections Funds Received
Schools Served: Lakeridge and Sumner Junior Highs No. Students Served
Tech Prep Consortiums: PROTEC and South King County
Contact Person: Ron Munkres
Telephone: 206-863-2201 FAX: Internet Address

Work Based Learning
Opportunities for mentorships, job shadowing and cooperative work experience activities are being developed. Using the Boeing model, the district is planning other internships. Current Tech Prep internships extend through post secondary training. On-site instruction in carpentry, painting and masonry is available through Bates Technical College as well as apprenticeships in health related fields through the Private Industry Council. Seniors contact employers, apprenticeship representatives, and post secondary training programs or colleges during a school release day.

School Based Learning
Its Career Futures Program (7-12) includes student portfolios, a choice of five career paths (9) and a thirteenth year education plan. Junior high students use the Washington Occupational Information System (WOIS) and, as eighth graders, complete career research paper. In the '95-'96 school year, the program plans on offering students pre-employment and work readiness training. Student research projects such as a land lab and farmers market (school-based enterprise) include both academic and vocational aspects and industry mentors. A senior project is required. Employers participate in a career day; an educational career fair brings colleges and training programs to the high schools. In an arrangement with Bates Technical College, students in construction classes are dual enrolled and can receive advanced placement credits. The district is exploring similar possibilities in electronics. Tech Prep classes are available in the five career paths.

Connecting Activities for Work Based and School Based Learning
For the '95-'96 school year, the district is trying to implement a partnership with the Private Industry Council (PIC). The PIC would provide job information and labor market trends to the Career Center and would employ a School-to-Work Coordinator who coordinates community activities and develops a community resource bank for both Sumner and two neighboring school districts. Along with the Pierce County Cooperative of Vocational and Special Education, the PIC will attempt to develop work readiness modules, and with Boeing and employers in the Business/Education Links to Learning (BELL), the agency would help develop more student internships. A School-To-Work Transition Council has brought together other representatives from education, labor, business, community based organizations and government, and the district has established a Communities for Families Consortium to help ensure services for all students and their families.

The district's long range goal for curriculum integration will eliminate the general education track and provides integrated education for both its tech college prep students. Sumner High School is serving as an integration model for the South Regional Education Board with a POD system teaming academic and vocational teachers. With guidance from a consultant , the district is developing School To Work goals for school leadership and a comprehensive career counseling system for the students.

Late start planning time allows teachers to plan integration activities. Staff development has included involvement in the Vanguard Project and attendance at the Work Now and in the Future, School-to-Work Tech Prep and South Regional Education Board Conferences. Teachers also take advantage of internships at Boeing and through the Superintendent of Public Instruction.

With PROTEC and the South King County Tech Prep Consortium, the district is developing competencies which can lead to certificates of mastery allowing students advanced placement in colleges and training programs. The school is involved in its students' thirteenth year. A system for student follow up and for

evaluating program changes will hopefully be in place in '95-'96 ; Under it, students who have dropped out are contacted with information on the work related opportunities now available.

KEY WORDS: apprenticeships, career assessment, career day, career path, competencies, curriculum integration, job shadowing, mentoring, portfolio, school-based enterprise, senior project, staff development, student internship, teacher internship, Tech-Prep.

District: **Tacoma School District** Legislative District:
Project Title: Enhancing Career Paths Funds Received:
Schools Served: Mt. Tahoma High School No. Students Served:
Tech Prep Consortium: Pierce Regional Occupational-Technical Education Consortium (PRO-TEC)
Contact Person: Jane Pryor
Telephone: 206-596-1456 FAX: Internet Address:

Work Based Learning
Health occupations students participate in job shadowing at dental and veterinarian clinics and in surgery placements at local hospitals. Washington Natural Gas provides job shadowing for students in the computer-aided drafting program. Students care for nursery stock and help plant trees for the City of Tacoma in a collaborative agreement between the City and the District. Through a partnership with the Private Industry Council, approximately thirty-five students participate in a District-wide internship program for which they receive two diversified occupations credits. A few students participate in Boeing summer internships. The School To Work transition project calls for expanding work based opportunities beginning in 1994 to include 25 internships for tenth through twelfth grade students. The District also plans to establish Business Internships for its ninth graders: students will participate in a career exploration at local businesses and business people will make presentations in the classrooms about specific jobs. A career day for each pathway is also being planned.

School Based Learning
The District uses a K-12 guidance model for counseling based on a life career development approach. Since 1991, Mt. Tahoma High School has had five career pathways: Arts and Communication, Business and Marketing, Engineering and Industry, Health and Human Services and Science and the Environment. Ninth graders choose a Career Pathway based on evaluation of aptitude tests, interest inventories, and career opportunity exploration. They develop a four-year plan and select their high school classes based upon their career pathway. With the help of school counselors, students are developing individual portfolios, containing academic, personal and career related information. These porfolios are continually updated and a process has begun to assimilate the content onto personal portfolio disks. Mt. Tahoma High School has an integrated curriculum organized around the students' career goals. Tech Prep classes in health care occupations, computer-aided drafting, business occupations, horticulture technology and automotive technology are available.

Connecting Activities for Work Based and School Based Learning
The purpose of the District's School To Work transition grant is to enhance an established career pathways model at Mt. Tahoma High School. The primary activity in the 1994/95 school year is to establish and enhance relationships with the business community. This is being accomplihed through Mt. Tahoma's membership in the Tacoma/Pierce County Chamber of Commerce and the local Rotary organizations. Mt. Tahoma recognizes that we must go out to the business community and spend time with them rather than waiting for them to come to us.

In an attempt to expand the student internship programs (see above) and the Summer Teacher Internship program, the district is working with the Chamber of Commerce. A business/school summit provided names of willing resources for the ninth grade Business Internship project. The District has Tech Prep articulation agreements in place with county technical and community colleges (see above).

The School-to-Work Project Coordinator is developing new student and teacher internships and building a database of work-based resources for the Business Internship program. Teachers are grouped into five Career Path Teams, four Grade Level Teams and departmental groups which support the career pathways model. The staff at Mt. Tahoma has provided information and training on pathways to the District's other four high schools and several other high schools in Washington. Staff development includes participation in Boeing teacher internships and in the District's Summer Teacher Internship program at local businesses.

KEYWORDS: career day, career path, curriculum integration, job shadowing, portfolio, staff development, student internship, teacher internship, Tech Prep

District: **Tri-City Area Cooperative**
Project Title: School-To-Work Cooperative
Schools Served:
Tech Prep Consortium: Columbia Basin
Contact Person: Terri Kessie
Telephone: 509-736-2589 FAX:

Legislative District:
Funds Received:
No. Students Served:

Internet Address:

Work Based Learning
Schools making up the Tri-City Area Cooperative offer work-based programs such as Cooperative Office Education, Inquiry into Science, job shadow exchanges for teachers and business people and the SeaFirst job and mentor program for at-risk students. JTPA-funded paid work experience and the traditional Cooperative Work Experience Programs are available also. Currently 200-250 students participate in a variety of school-to-work internships. They are assigned business mentors who help them complete established competencies for school credit.

School Based Learning
Applied academics, block scheduling and a school-within-a school model are some of the School To Work elements offered by districts in the Tri-City Cooperative. Depending upon the school, computer-based interest inventories, career pathways programs, comprehensive K-12 guidance and/or "career path advisors" from industry are available to the students.

Connecting Activities for Work Based and School Based Learning
This School-To-Work grant facilitates the efforts of the Tri-City Cooperative and the Hanford Educational Consortium, an organization of Department of Energy contractors, local school superintendents, Columbia Basin College and school vocational directors, to expand student internship opportunities. The Chamber of Commerce and the Mid Columbia Youth consortium (JTPA) are also partners in this undertaking.

In addition, the Cooperative intends "to bring the world of work into the K through 8 classrooms" by developing a Clearinghouse Directory. This database will list community resources for special presentations, speakers, career days, mentorships, job shadowing career research and class projects.

Counselors from each district in the Cooperative attend monthly meetings with school administrators at the Tri-Tech Vocational Skills Center to plan strategies to enhance School to Work efforts. This group will help implement the Cooperative's project which will be evaluated upon increased work-based opportunities and an increased number of students developing educational goals around a career path. A growth in the number of business/industry people involved in the School to Work effort will be an outcome also.

Along with the organizations and agencies who are directly involved in this project, the Cooperative works with the TriCity Economic Development Council (TriDec), school site councils, other state and federal School to Work Programs, the School-Business Partnership Program, individual small businesses and the Secondary Vocational Education Delivery Program. The local Tech Prep consortium has an articulation agreement in welding; agreements in office and automotive technology are being developed.

Staff development funded by the grant focuses upon increasing the awareness of the importance of connecting school- and work-based learning. The staff will be trained to utilize the Clearinghouse Directory and the internships opportunities available for their students.

KEYWORDS: applied academics, career assessment, career day, career inventory, career path, career path advisor, competencies, job shadowing, mentoring, paid work experience, portfolio, staff development, student internship, Tech Prep

Washington School-to-Work Case Study Report

District: **Tri-District** Legislative District:
Project Title: Tri-District Human Services Program Funds Received:
Schools Served: No. Students Served:
Tech Prep Consortium: Twin County and Willapa Harbor Tri-District
Contact Person: Robert C. Pattee
Telephone: 206-942-2668 FAX: Internet Address:

Work Based Learning
Students in Diversified Occupations can participate in a co-operative work experience option related to their career choice.

School Based Learning
Eighth and ninth graders have a career awareness and career assessment unit in their required entry level vocational classes during which they develop a four year enrollment plan. Career guidance is a team effort among counselors and vocational instructors. Students undecided about a specific career are encouraged to enroll in Diversified Occupations. Student portfolios are maintained and Career Centers have been developed. Applied academics offerings include biology/chemistry, mathematics, communications and Principles of Technology. Tech Prep classes are available in Natural Resources and Information Technology. The School To Work transition funds are helping to initiate a Human Services Tech Prep program including courses in crisis intervention, mental health, social services, medical terminology, healthcare, nursing and law enforcement.

Connecting Activities for Work Based and School Based Learning
Part of the School To Work transition funds were used to develop partnerships with local businesses, organizations and government agencies to support the Human Services Program. These community resources include the Department of Social and Health Service, Grays Harbor College, Willapa Harbor Care Center, Willapa Harbor Hospital and local law enforcement officials.

The Port of Willapa Harbor is another partner. It provides a centrally located facility at a "reduced lease" for the established Aquaculture Program and helps with a "net pen enhancement project" for salmon. Tri-District also has partnerships with local shellfish producers and seafood canneries who aid in production and processing projects for the program. Tri-District has hosted an Aquaculture inservice for instructors.

Tech Prep articulation agreements are established with Grays Harbor College (see above).

Part-time instructors in nursing and human services have been hired for the Human Services Program. The grant has provided staff development and on-site research opportunities particularly for expanding course offerings in applied academics. Monthly release time is available for vocational and special education teachers and administrators to meet for planning School To Work transitions for Tri-District's special needs students.

KEYWORDS: applied academics, career assessment, portfolio, staff development, Tech Prep

District: **Vancouver School District/Clark County Consortium** Legislative District
Project Title: **Career Connections** Funds Received
Schools Served: No. Students Served:
Tech Prep Consortium: Southwest Washington
Contact Person: Jill Carpenter
Telephone: 206-696-7217 FAX: Internet Address

Work Based Learning
Students in schools which make up the consortium can participate in job shadowing, mentorships, internships and community service learning experiences. In the Evergreen School District at-risk fifth grade girls receive the special attention of adult women mentors. Students with special needs have one-on-one job coaches at their worksites; those with limited English have special tutors. Vancouver School District provides a Career Focus Program that is a daily on-site job experience with credit and employability skills seminars. Battle Ground students can prepare for a career in fire fighting and emergency services through a program with Clark County Fire District. Paid work experiences are available in a Cooperative Work Experience program.

School Based Learning
The district goal is for eighth graders to develop an Individual Career Plan which includes a portfolio and enrollment in one of six career pathways. After earning the initial certificate of mastery, students take courses and participate in work based learning experiences linked to their career path. An increasingly integrated curriculum, in some schools delivered by groups of teachers or in schools-within-schools settings, includes applied academics in communications and mathematics. Battleground High School is developing applied biology/chemistry classes. Special education is focused on a vocational/academic integrated curriculum. Programs support non-traditional career choices for women, and at the Skills Center, traditionally male programs and traditionally female programs are teamed to promote positive working relations between genders. A Running Start Program offers advanced placement classes for the academically talented. Students completing a Skills Center program receive an interim certificate specifying competencies acceptable for entry employment in their career path. The goal is to also provide students with a Tech Prep option linked with Clark College and earn an industry-recognized skill certificate and eventually an associate degree.

Connecting Activities for Work Based and School Based Learning
The Columbia River Economic Development Council has provided local workforce information for the consortium's School To Work effort. Staff, parents and school board members have attended workshops on instituting career pathways and performace-based instruction and on strategies for working with a diverse population. A partnership with the health care community has developed work based opportunities and career options in health occupations. The Public School Employees Union and the Southwest Washington Child Care Consortium have developed a registered apprenticeship program. Competencies are being developed jointly by teachers and a coalition of business representatives and are validated by various businesses. A community resource database and computerized communication network between schools is being designed to coordinate the work based learning activities. The ESD Business /Education Cooperative is linking schools with businesses through e-mail.

Career Facilitators at the middle/junior high school, School To Work Coordinators at the high schools Skills Center develop and coordinate workbased learning opportunities. In addition, a business/education partnership cooperative established by the ESD provides a half-time coordinator who promotes partnerships programs for K-12. Clark Community College also employs a full time Tech Prep Coordinator.

Staff development includes team building and curriculum development. The consortium sends teachers to conferences and on site visits which are helpful in implementing Tech Prep courses. Secondary staff take

part in field trips to worksites and summer internships. A symposium on School To Work issues is being planned.

Consortium high schools are developing Tech Prep opportunities with Clark College which are presently focused on Business Education and Machine Tool Technology. The schools have advanced placement agreements and envision future involvement with the Vancouver branch of Washington State University.

KEY WORDS: applied academics, apprenticeships, career path, community service, competencies, curriculum integration, job shadowing, mentoring, paid work experience, portfolio, student internship, teacher internship, Tech-Prep

District: **Wapato School District** Legislative District:
Project Title: Educational and Career Opportunities Advisement Funds Received:
Schools Served: Wapato High School and Pace Alternative School No. Students Served:
Tech Prep Consortium:
Contact Person: Rick Foss
Telephone: 509-877-4181 FAX: Internet Address:

Work Based Learning
The District plans to have all students complete a job shadowing experience prior to their graduation. At present, eligible students may participate in work-based opportunities through JTPA or Opportunities Industrialization Center programs. High school students can serve as peer mentors for elementary students through an in-house program for those interested in a teaching career. The District is exploring involvement in a JOBS program which will provide more work-based opportunities for some of its students.

School Based Learning
Eighth graders complete interest inventories, select a career pathways and pre-register in appropriate high school classes. Ninth graders begin a career portfolio, research their pathway using the Washington Occupational Information System (WOIS), take a skills classes which is integrated with English and write a research paper. Tenth graders take an aptitude test and give an oral presentation based upon their aptitude research. Juniors take the Kuder Assessment, write a paper in their history class after interviewing a person connected with their pathway. Seniors complete a senior project which is presented to community members, parents, teachers and their peers. Computer-assisted, career-orient resources other than WOIS are available and classroom presentations and job fairs are elements of Wapato's School To Work effort.

The school has attempted to incorporate the SCAN's skills into all areas of the curriculum. Applied mathematics classes are offered. A Running Start Program is available for Wapato students at Yakima Valley Community College and students may attend classes at Yakima Valley Skills Center.

Connecting Activities for Work Based and School Based Learning
During the 1994-95 school year, the District is implementing a Community Partnership Board with members identified by the school staff and Vocational Advisory Committee.

Teachers, counselors, administrators and the Vocational Advisory group visited or received in-service training from the staff of four exemplary School To Work programs. Staff members have taken a career decision making assessment, been trained to serve as career path advisors and visited a job site within their pathway . Additional staff development has included presentations from Randy Dorn, Chair of the House Educational Committee and career education consultant, Cal Crow.

KEYWORDS: applied academics, career inventory, career path, career path advisor, job shadowing, mentoring, portfolio, senior project, staff development, teacher internship

Washington School-to-Work Case Study Report

District: **Wenatchee School District** | Legislative District:
Project Title: School-To-Work Transition Program | Funds Received:
Schools Served: Wenatchee and West Side High Schools | No. Students Served:
Tech Prep Consortium: North Central Washington
Contact Person: Landon A. Fitch
Telephone: 509-663-8161 FAX: | Internet Address:

Work Based Learning
At present, students have mentors at Chelan County Public Utilities District, other government agencies and some health care facilities. Cooperative Education work experience is being expanded as a component of business and marketing education. The district is working on increasing mentorships so more students can participate and is developing an apprenticeship program to provide experiences in other career fields. The Career Center has a job listing service.

School Based Learning
Some freshmen begin high school in Connections, a career focused pilot program with its core curriculum delivered in a School To Work context. Their ninth grade activities include using a computerized exploration program for selecting career paths. (The career pathway concept is being piloted this year.) Job related information is infused into the regular education program for all freshmen and sophomores. Students may enroll in Applied Mathematics and Applied Communications classes as well as Applied Physics/Principles of Technology. More sections of the applied academics classes are being added and advanced courses will be offered. Tech Prep classes in agricultural and health-related fields are available.

School-based enterprises at Wenatchee include a school store, an espresso cart, an orchard and a greenhouse. A Summer Employment Fair held during spring term includes workshops for students on resume writing, interviewing and dressing appropriately for a job.

Connecting Activities for Work Based and School Based Learning
Community members as well as district staff and students are part of the School To Work transition team. The employment fair is a joint project between the school and the local Rotary Club with the assistance of the General Advisory Committee of the Wenatchee Workforce Council. A School To Work Coordinator is working with the business community to expand the work based opportunities for students. As the Tech Prep program develops, teachers and, particularly, school counselors are coordinating their efforts with their peers at Wenatchee Valley College. Articulation agreements are now in place with the College in tree fruit, health occupations and sports medicine. Some programs articulate with Washington State and Central Washington Universities as well.

After spending the first year of the transition gathering support for the program, educating staff, students and the community and planning the introduction of career pathways, the district began its second year with an opening day presentation by Representative Randy Dorn. Staff development has included attending conferences, visiting exemplary School To Work programs and training in applied academics and the computerized career exploration program. A science teacher has received dual certification in agriculture education, and the school counselors have been trained in the career pathways concept. The district is now exploring a Back To Industry Program to update its staff members on business and industry practices so they can more effectively incorporate current information in their lessons.

KEYWORDS: applied academics, apprenticeships, career path, mentoring, school-based enterprise, staff development, Tech Prep

District: **Woodland School District** Legislative District:
Project Title: FOCUS/PATHWAYS Funds Received:
Schools Served: Woodland High No. Students Served:
Tech Prep Consortium: Clark-LCC
Contact Person: Laurie Wilhite
Telephone: 360-573-7082 FAX: 360-225-9456 Internet Address:

Work Based Learning
Woodland students participate in a three-hour job shadowing at a work site connected with their career path Two students each month attend Chamber of Commerce meetings to learn about local careers and businesses. Students also attend the Career Day for Women in Math and Science and the Exploring New Options Career Day, both held at Clark College in Vancouver.

School Based Learning
Students begin an individualized career portfolio in the sixth grade and develop it each year through grade 12 with the help of school counselors and infusion into all parts of the curriculum. Portfolio components such as resume, letter of application are finalized through the English class. Students take aptitude tests and interest inventories in order to help them identify appropriate career pathways. The District is developing a Career Center in the library and has purchased several computers, software and reference materials dedicated to career research. A computer on a rolling cart will be available to teachers to check out for portfolio activities. (Middle and high school students share the same facilities.) A bi-annual Career Day includes presentations on local careers and Career Path speakers. The Career Day includes information on non-traditional career opportunities. The effort towards curriculum integration will be aided by the District's new four-period schedule which begins in 1995-96. Teachers will receive inservice on integration, project learning, and teaching extended block periods. Cal Crow presented career information at an inservice this year. Applied mathematics includes a senior project on purchasing a car, and students with special needs have conducted an auction of surplus building materials. Tech Prep classes in several areas are available (see below).

Connecting Activities for Work Based and School Based Learning
The management team for the FOCUS program is comprised of counselors, teachers, parents, local business people and school advisory committee members. A FOCUS staff team meets monthly to review goals, design implementation strategies and establish connecting activities related to the portfolio and job shadow project. The team consists of an English teacher, counselor, special education teacher, alternative career/English teacher, career specialists for Business Partnership program and Portfolio management. The vocational director also represents business education on the team. Work-based learning activities are developed with the help of the District's Business Partnership program and Vocational Advisory Committees. The community has been informed about the School To Work transition through open forums, open houses and presentations to the Chamber of Commerce. Woodland intends to evaluate its program at the end of each month. The outcomes it hopes to achieve include establishing portfolios for all students, growth in the number of employers in the Business Partnership and number of job shadowing sites, development of career pathways and two school-work connecting activities for each grade level. Woodland has Tech Prep articulation agreements with both Lower Columbia College and Clark College in business education and office administration, horticulture and welding.

A Career Consultant hired through the Clark County Skills Center/Evergreen School District School to Work funding has worked with Woodland counselors from both the middle and high school and conducted a teacher inservice on implementing the career portfolio. The Consultant works with Woodland's middle school students one day each week during the first semester and is teaching a Discovery class to eighth graders second semester; the District hopes to expand services to its high school students for the future. A Career Specialist was hired for each of the following tasks: Business Partner Specialist (communicates with the business community, establishes job shadow sites and the speaker's bureau, executes and coordinates job shadows with students and business partners), and Portfolio

Specialist (communicates with the counseling office and teachers about Portfolio activities, helps with students assessments, maintains Portfolio files and provides sets of portfolio files to classroom teachers as requested.

KEYWORDS: applied academics, career day, career inventory, career path, competencies, curriculum integration, job shadowing, portfolio, staff development, Tech Prep